# DUN'S REVIEW

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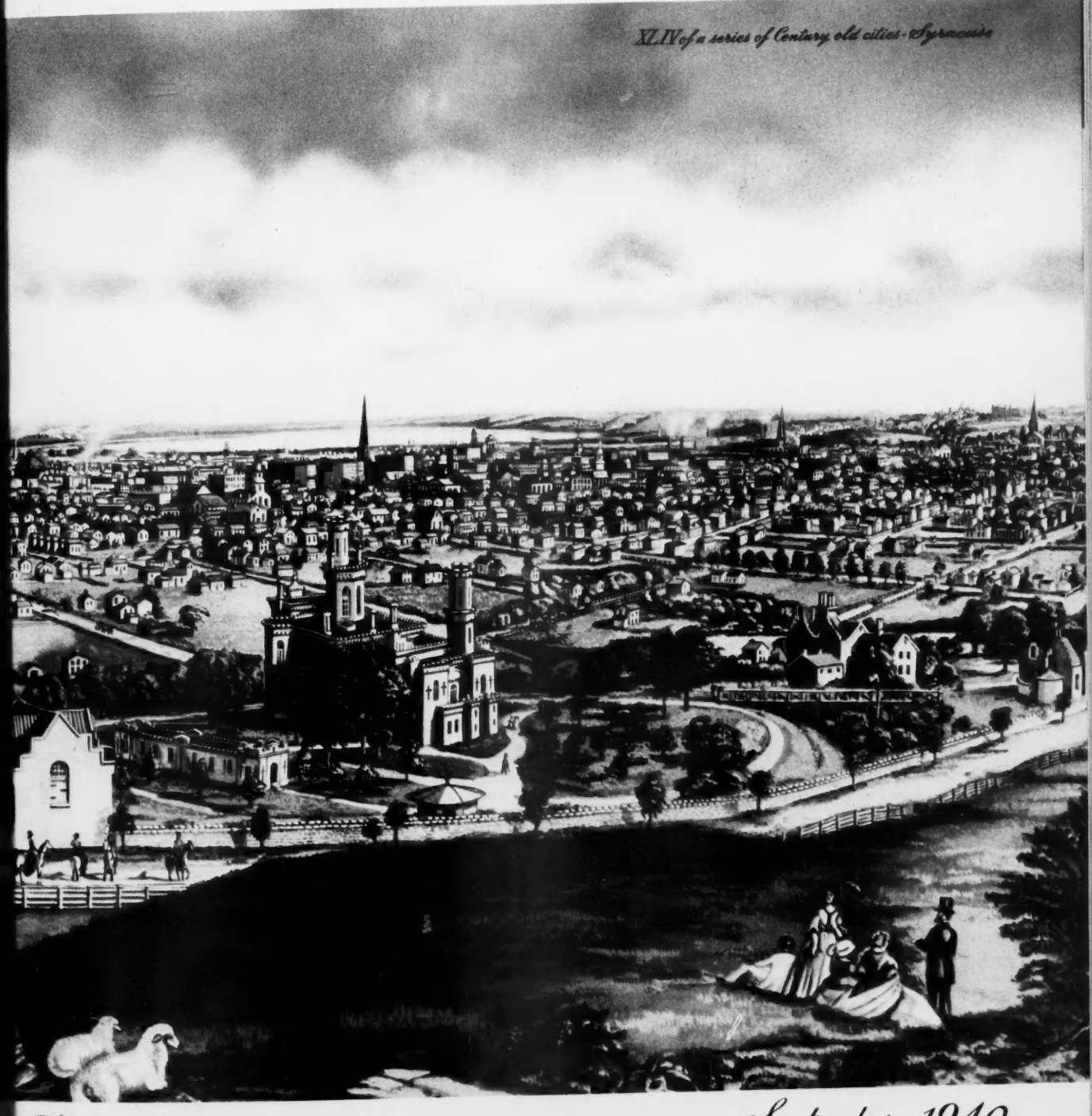
*XLIV of a series of Century old cities - Syracuse*



*Thirty five cents*

*September 1940*

## *This Month's Cover*

## SYRACUSE

*Syracuse found its first major prosperity in pumping brine out of the salt beds below. These had been discovered in 1654 by a Jesuit missionary, Simon le Moyne, when Indians told him of a spring in which dwelt a demon who gave the waters an evil taste. . . . Standing midway between Albany and Buffalo, Syracuse overlooks Lake Onondaga, named for the tribe which kept in their long house the council fire of the Five Nations of Iroquois. To trade with these Indians in 1786 came Ephraim Webster. He was followed by Asa Danforth, his wife, and son. Soon three villages took form where the city stands. They were merged in 1820. After the fashion of that classics-loving period, the new town was named for a Greek city, the ancient capital of Sicily. . . . Early nineteenth century salt merchants of Syracuse did much to promote the digging of the Erie Canal. With its coming, the town expanded. In 1847 Syracuse became a city. The front cover print was lithographed and published by M. de K. Martin in 1855. The view is from a hill now occupied by Syracuse University. . . . Today the city (above) is a balance of activities. It is New York's fourth in number of manufacturing establishments and their employees, fourth in population (205,637 estimated), fifth in total value of goods produced. Inland shipping on the State Barge Canal slips placidly along nearby; and around Syracuse stretch the rich farmlands of upstate New York. Annually, it is host to the State Fair, this being the fiftieth year. Retailing is an $81,380,000 and wholesaling a $103,770,000 business. Total value of Syracuse manufactures is $107,434,697.*

# DUN'S REVIEW

*for*

# EPTEMBER, 1940

NEW YORK CITY FROM ACROSS THE HUDSON—PHOTO BY LAWRENCE D. THORNTON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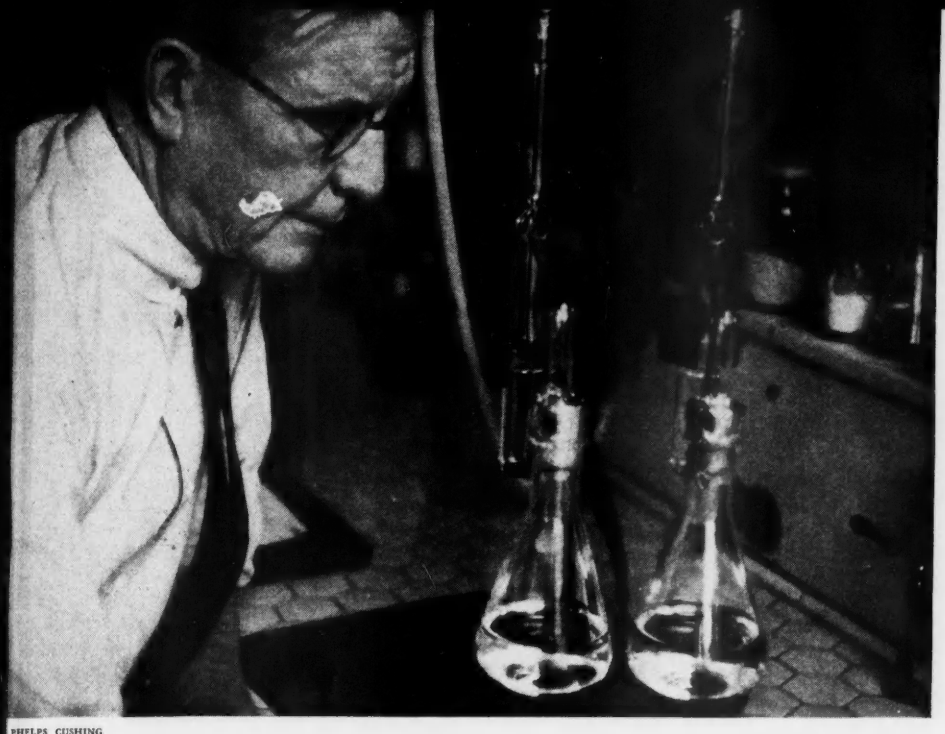

PHELPS CUSHING

# INDUSTRIAL RESEARCH *in* YOUR OWN BUSINESS

LEWIS W. WATERS
*Vice-President in Charge of Research and Development, General Foods Corporation*

*Here the research director of a corporation generally conceded to be one of the Nation's most progressive appraises the function and scope of research in industry and offers sixteen suggestions about research organization, procedures, and objectives. This is another of a series of articles on subjects of importance to business, presenting opinions of men of widely differing backgrounds, experience, and points of view.*

FROM Europe have come reports that, aided by some stimulant not yet identified in this country, German soldiers have been enabled to march, and to fight, for unusually long stretches without sleep.

Some day American science may need to know what that stimulant is—if indeed there is one; for out of our laboratories may need to come new war-making expedients and new weapons.

But more surely—for we are a democracy—out of our laboratories will come new instrumentalities of peace and of restoration.

Out of our laboratories are coming new uses for substances like pectin. Pectin, which is a food industry product, we long have known as the activating principle that causes jellies to jell. Now, thanks to cooperation between industrial research and medical research, we know pectin, also, as a dramatically effective agent for causing wounds to heal.

As always in modern times, in our day the glare of war has highlighted the achievements of the scientist, the chemist, the engineer; and we marvel at these men's works. We shall serve our country well, serve her well in the trying days that may come and serve her well in the brighter days to follow, if somehow we translate our wonderment into action. American research always needs encouragement, specifically the encouragement of American business management.

True, we Americans have come a long way. In a decade, we have converted a hundred novelties into necessities. In our laboratories we smash atoms and poke dispassionately into the structures of molecules.

Industrially sponsored research has air-conditioned many of our offices and our homes, televised radio and, for our health's sake, has put together synthetic hormones and vitamins. Research, industrially sponsored, has produced special foods for our babies and our

### Lewis W. Waters

Since his graduation from Massachusetts Institute of Technology in 1910 Lewis William Waters has been engaged continuously, except for two years of teaching at M. I. T., in industrial research. His first job was as a chemist with the Campbell Soup Company. Then for the United Fruit Company, he went to Costa Rica to head its research laboratory in Port Limon. For another three years, in wartime, he was in Wilmington, Del., in the Experimental Station of duPont.

In 1920, before he or anyone else could be aware of it, began Mr. Water's association with the General Foods Corporation, for he joined the Minute Tapioca Company, which subsequently became a part of the corporation.

From 1927 to 1930 Mr. Waters was Assistant to the executive vice-president of the General Foods Corporation; since then, for ten years, he has served in his present post of Vice-President in Charge of Research and Development.

Other responsibilities and associations are also Mr. Water's. He is a vice-president and director of the Sperti Lamp Corporation, a vice-president of General Development Laboratories, and a director of Minute Tapioca Company, Ltd., in Canada.

PHOTO BY PINCHOT

school-age children; and now, watching us grow into a nation of the middle-aged, research turns its attention to special foods for oldsters.

All around us, research moves on; and therein, as I see it, lies a danger. In industry, all too often, research moves around the plant, and not through it.

Our industry needs research—inside.

In masses, our research figures may sound impressive. Annually, we spend for industrial research something between $250,000,000 and $300,000,000; but that figure represents for each of our inhabitants an apportionment of something less than $2.25. Nationally, we operate industrial research laboratories to the number of 2,000. But against the number of industrial plants engaged in business in our country, that figure stands as a ratio of slightly more than 1 per cent. Nationally, we employ industrial research workers to the number of some 40,000. But I wonder if with that number we are insuring our industry's future—wonder because the number of research workers in one of the totalitarian countries already has crossed the mark of 100,000.

So much for the broader view. Now for the situation of the individual American enterprise.

Mainly, management has accepted science as something that has come to stay. Scarcely an industrialist of importance remains who has not either accepted research as an industrial function, or been forced to admit that his research-minded competitors are spraying him with red ink. But, understandably, in many an executive mind there lurks the question: What, specifically, will research do for my concern?

To answer that question definitely is, of course, impossible. But, at least, we can look at results that, in specific instances, research has produced.

Most spectacularly, of course, research has evolved new products. It has improved old products.

For all manner of products, research has found new uses—and broader markets.

By eliminating waste, by improving the quality of materials, by improving manufacturing processes, research has cut costs.

By spreading among large numbers of persons the kinds of information that used to be called guild secrets, research has enabled whole industries to strengthen themselves. Consider the fate of Sandwich glass. With the passing of those who devised it, the art of its making was lost.

In a changing world, in a changing America, research has kept managerial policies abreast of the times —or ahead. Specifically, no industrial concern, no business concern of any kind, can fail to be touched by such purely peace-time shifts as these: An aging population; smaller families; smaller homes; less space per family; more hand-to-mouth buying; a decline in home-ownership—percentage-wise; a growing tendency to move; a decline in farm population, but, thanks to better transportation for commuters, an increase in suburban life. Changes such as these, if they've done no more, have helped to banish the cracker-barrel type of store and beautified and glorified and almost sanctified the package.

Finally, and perhaps most importantly, the mere association with research—research's mere proximity

—has altered managerial thinking. More and more widely, management has come to realize that a closed door keeps more out than it keeps in.

So much for the more potent reasons why. Now for the how—

How, with limited resources, may what we call the average enterprise—whatever average is—engage in research on such a scale and in such a way as to get back more than its seed?

As a research worker who, throughout his active life, has engaged in research work under a wide variety of conditions and environments, I offer certain suggestions:

1. Approach the establishment of your research activities with a determination so to set up your research department and so to man it that it will command your management's respect and confidence.

2. Advantageously, perhaps, you may engage the services of "outside" research agencies; but if you set up your own department—and that seems to me to be preferable if you can afford it—set it up separately so that it will report directly to the top management.

3. Although you establish the department separately, see to it that your entire organization becomes "research-conscious." Thus between research and the other departments with which it must work you will insure a greater measure of wholehearted co-operation. Thus too—and as importantly—you will avoid maintaining research as an ornament or as merely a fountain of ideas for your advertising department.

4. To head your research, pick a man properly trained, but not overtrained. Pick a scientist who can get along with men. If later you are to need scientific hermits, under such a man you can grow them.

5. Encourage in your research chief the spirit of adventure. Encourage him to use his imagination. Arouse and keep alight his enthusiasm. Examine his findings impartially; but when he merits praise, be sure to praise him.

6. Don't expect your research to work alone. Research has become a task so broadly co-operative that, upon the appearance of every new industrial product and of every new industrial process, it becomes more difficult to name the inventor. Research demands teamwork.

7. Inventory your problems. Clarify in your own mind what you need to do or what you hope to do, study previous attempts to do it, find out why they failed—and then turn your research department loose.

8. Remember that research is a service department, charged with its own entirely respectable responsibilities and with its own share of your practical operations. Never let it be thought that research is a critic, a fault-finder, or a spy.

9. Because properly conducted research work actually is a service department, see to it that your research department may serve on all your fronts and in all your sectors. Perhaps your research will engage primarily in exploring. Encourage it and enable it to engage, also, in checking—checking your key processes to watch your costs and to maintain your standards. At General Foods, some of our researchers, pursuing pure science, take molecules apart; and some of them, stationed prosaically at key positions in our

*(Continued on page 45)*

"HEAVY OILS" EMERGING FROM STEEL MILL BY-PRODUCT PLANT, CLEVELAND, OHIO—PHOTO BY CHARLES PHELPS CUSHING

# THE RISE *of the* SUPER-MARKET

CHARLES PHELPS CUSHING

# *and some* MARKETING CONSEQUENCES

REINHOLD P. WOLFF

ALMOST unknown ten years ago anywhere but in the Southwest and on the Pacific Coast, super-markets have now penetrated into every State in the Union. From an estimated total of 200 stores in 1930 their number has increased to about 7,000 today. In addition, thousands of other stores, still not large enough to qualify as super-markets, have been displacing the small but venerable corner grocery. Altogether super-markets and other big grocery stores—many of them self-service—may now be credited with almost half of the total food volume of the Nation, whereas in 1935 grocery and combination stores with an annual sales volume above $100,000 accounted for only 16 per cent of total sales.

To economists since the days of Adam Smith, retailing, and particularly food retailing has seemed by its very nature a small scale operation. Until recently most food was bought for short range consumption in small quantities. It was a convenience good, and food stores were considered typically convenience, neighborhood stores —*as contrasted to downtown stores* where consumers went less frequently and where they generally bought less perishable articles. Even such marked recent changes in living habits as the shift from homes to apartments and the motorization of transportation had at first little influence on hand-to-mouth buying habits.

Only during the depression when pocketbooks of consumers were getting thin did the automobile, artificial refrigeration, and canned and storage foods impress their mark on food purchasing customs. In greater and greater numbers consumers put themselves into their automobiles, travelled to larger stores which offered bargain prices, bought in larger quantity, and took their purchases home to be stored in kitchen cabinets and refrigerators until used.

Leading in the movement towards the large store have been not chain stores but independent operators. At present the super-market field is shared in the proportion of about two to one by independents and chain super-markets, with the trend now definitely *toward further gains by the chain super.* Similarly the displacement of smaller stores by larger self-service stores *is* noticeable both among independent and chain operators.

Super-markets have spread fastest in the Pacific States, particularly in California, which still accounts for about one-quarter of all super-markets. In the Middle Atlantic States, in New England, and in the Middle West the movement has gained momentum only during the last three or four years, but population-wise their share in the total number of super-markets now about equals the average for the country. In the Prairies States and in the South large stores are still far behind the national average.

From the records of the Super-Market Institute, a trade association of super-markets, it appears that independent super-markets increased from about 200 in 1930 to 1,200 in 1936, 3,000

in 1937, 3,700 in 1938 and about 4,760 in the Spring of 1940. Most of these stores had their beginnings in single units set up by successful food wholesalers or retailers. Efficient merchants were able to add new store units to the existing ones, thus creating the now prevalent "multiple stores," comprising anything between two or ten units in a single city or in neighboring communities. Among most recent developments is the rise of virtual super "chains," such as the 250 King Kullen units in Greater New York, the Albers Super Markets in Ohio, the thirteen Weingarten Stores in Houston, Tex., and the Union Premier Stores in Pennsylvania. The last organization demonstrates the evolution of super-markets into big business; with 59 markets and 24.5 million dollars of annual sales, it has offered its stock in the investment market.

### Chain Competition

Not less spectacular is the mushroom growth of large markets operated by the long-established chains. Especially the large national systems have been impelled by actual or threatened per-store excise taxes to operate bigger and fewer stores.[1]

[1] *Dun's Review, October, 1939.*

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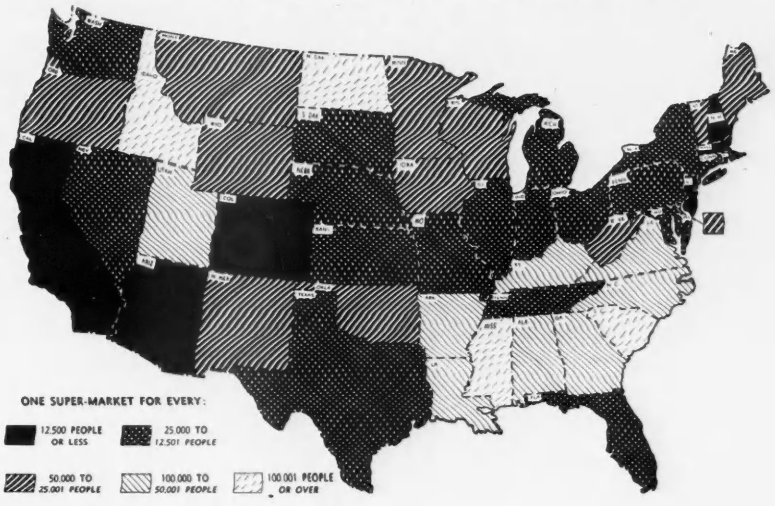
The Great Atlantic & Pacific Tea Company has been a leader in making this adjustment, reducing some 15,000 corner grocery stores of pre-depression days to less than 10,000 stores, of which 1,500 may be counted as super-markets; thousands of others now have self-service features. During the first six months of this year A&P was opening a new super-market about every second day. Safeway, second largest chain in volume of sales, added 218 stores and 279 meat markets during the last year alone. Kroger reduced its number of small stores from 3,916 stores to 3,886, many of them with self-service features; First National Stores was operating 133 self-service stores by March 30, 1940; American Stores last year alone opened 103 self-service markets of the super-market type and converted 112 of their neighborhood stores into self-service units; Economy Groceries was operating 43 super-markets in addition to 294 neighborhood stores.

Apparently this transformation has not yet spent its momentum and further expansion might be encouraged by the striking advances in annual sales despite the reduced number of units. Last year A&P again reached its pre-depression high of close to one billion dollars volume, despite drastic reduction in number of stores. Safeway, Kroger, First National, and American Stores, next in size, increased their volume correspondingly from depression lows. The large corporate chains apparently have not only maintained their position in the food market, but made gains at the expense of independent stores and of smaller chain systems.

**Super-Market Concentration in the United States**

*Estimates of the Super-Market Institute, May, 1940, based on 1930 Population Census.*


ONE SUPER-MARKET FOR EVERY:
12,500 PEOPLE OR LESS
25,000 TO 12,501 PEOPLE
50,000 TO 25,001 PEOPLE
100,000 TO 50,001 PEOPLE
100,001 PEOPLE OR OVER

Marketing experts do not agree on the reasons which are responsible for this swing from the small to the large store. Some observers, noting the fact that most of the large businesses have been built out of humble beginnings, credit efficient small operators with the success of the super-market. Others, ascribe super-market growth to the promotional shrewdness of their originators and to the fickleness of female buyers—captivated by the glamor of the big market. A third group of observers credit the depression and its attendant price-fixing. Nor is there agreement on the probable future trend. Some prophesy further progress of the efficiently operated large stores; others foresee an early decline when the con-

H. ARMSTRONG ROBERTS

suming public will turn to some new adventure in food merchandising.

But there is evidently sufficient evidence to suggest that the large store will have more than a fleeting existence. What only a very short time ago was believed impossible has been achieved by pioneers of super-market merchandising. A volume up to $3,000,000 has been assembled under the roof of one store. Super-markets with more than a million dollars sales annually are now to be found in almost every large city. Such success may have been accomplished originally by promotional stunts, but the volume has been maintained by regular methods of advertising and selling.

Draining the stream of customers into the large market, from far away small stores is of course, nothing new. It follows the pattern of the rise of the department store. But it is new in food merchandising. According to a recent marketing survey of True Story publishers, more than 40 per cent of super-market customers travel three miles and almost 20 per cent drive five miles to reach the market.

Next in importance to this, the accomplishment of food store operators rests in the increase in individual purchases. It is frequently overlooked that the real economy of large scale selling stems from this increase. If we follow the data reported by the Great Atlantic & Pacific Company we may suppose that the average sale per customer in a neighborhood store of the A&P type is 58 cents and most probably less in smaller independent units. Compared with this the size of the typical super-market purchase is amazing. The True Story survey found that half of the super-market customers carry at least $3 worth of merchandise through the turnstiles and a third, $4. Checking on the baskets of customers the survey found the following average number of units:

| | |
|---|---|
| Canned vegetables | 4.4 |
| Canned fruit | 2.9 |
| Sugar (1 lb.) | 3.9 |
| Canned milk | 4.4 |
| Packaged soaps | 1.5 |
| Canned soup | 3.6 |
| Coffee | 1.4 |
| Bar soaps | 3.2 |
| Packaged crackers | 1.6 |
| Canned fish | 2.9 |

This table lists merchandise in the order of its importance to super-market volume.

Not enough that large stores have successfully increased the number of customers and the average amount of their purchases, they have been able to build up large unit sales by promoting the large package. The A. C. Nielsen Company has found that the large independent stores do 87 per cent of their sales in large package sizes, while small independents still sell only 60 per cent this way. This survey found also that 36 per cent of fruit and vegetables, 65 per cent of butter, 80 per cent of coffee, 58 per cent of canned goods, and 70 per cent of other groceries are regularly bought for more than one to three days' supply. Such changes are the more surprising for they have come about in a field where economic demand is inelastic and buying habits conservative.

### Super-Market Lures

How has it been possible to alter the consuming public's deeply rooted habits? What made city people travel miles for their daily bread and butter? What caused housewives to carry large quantities of groceries to their homes and store up to a week's consumption in the ice box, when they could be daily obtained in the neighborhood grocery store? In the main, the answer to these questions is in a combination of various appeals, of which wide selection and price are most important.

Undisturbed by serving clerks, the super-market shopper may select her purchases from among some 3,000 to 4,000 different articles with about 2,000 to 2,500 trade names. And she may change her mind afterwards without embarrassment.

It was through week-end offerings at spectacular price reductions that chain grocery stores first revolutionized the methods of food pricing. From such bargain sales developed price wars which reduced average margins on advertised brands and forced independent retailers to adapt prices to the bargain-hungry shoppers.

Quite naturally, stores which offered 3,000 articles were able to set up a larger bargain list at more spectacular price reductions than a chain store unit with its much smaller assortment of items. When super-markets grew and started

CHARLES PHELPS CUSHING

to compete among themselves the loss-leader technique was developed into more subtle methods. Drastic price reductions were supplanted by milder cuts. Instead of a few eye-catching bargains in each department a larger number of nationally known brands were offered slightly above cost. The gigantic week-end specials were altered into permanent offerings. But the principle of bigger and better bargains was maintained and skillfully utilized to make the bargain-conscious consumer buy larger quantities at one time. According to Nielsen's food index 55 per cent of canned goods—the super's best sellers—are bought on special sales and only 45 per cent as needed.

Small wonder that a price structure has emerged which is as erratic as the competitive forces responsible for its creation. To judge from a survey of 20 grocery stores in a large Southern city (accompanying table) super-markets evidently offer the juiciest bargains in all departments. On the average, although not in all departments, the chain super's reduction from the standard price is largest, while independent supers, especially the very large super-markets (column 7) offer a somewhat more complete list of items. It is apparent that in all departments quite a few well-known articles are carried at standard prices and a few quotations are considerably above standard. "Standard price" is here defined as the average price at which most merchandise is moved.

Pricing policies of the neighborhood chain stores (columns 2, 3, 4) differ from the super-markets, both chain and independent, in that they offer a much smaller selection of nationally advertised items and quote generally a higher price. It is particularly interesting to compare the price range of the large market of a national chain (column 1) with those of the store in column 3, a neighborhood unit of the same corporation. The prices in the small unit are much closer to neighborhood independent stores than to those of the chain's own super. The chain store in column 4, which belongs to a sectional chain, comes very close to super-market quotations, although on a smaller list of bargains.

In the ranks of the larger independent stores with self-service the Southern city survey found a remarkable variety of price ranges. If the difference in services is taken into account, however, the average price level seems not too far from their chain store competitors. Not a few of these larger units are downtown stores, in direct competition with nearby super-markets. As a whole they are competing both on a price and selection basis with supers and chains.

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The small independent stores present a price mosaic which reflects their differences in competitive appeal and, of course, in management. Most of them offer bargains in some advertised line, but the majority carry advertised groceries above standard prices. If we remember that the standard price itself is largely determined by the volume sellers and therefore includes a very narrow mark-up, the higher price need not be a profitable price.

### Small *vs.* Large Store

By and large the line of demarcation between high and low price stores seems to be between large and small stores rather than between the types of organizations. The consumer finds the lowest prices in the largest stores, not necessarily in the chain store, while the neighborhood units, both of chains and independents compete on a service as well as price basis.

But can such a price structure with broad price differentials between shopping and convenience units exist for any length of time? Will the smaller store withstand its rival's competition in price and selection? Before the advent of the chains and super-markets independent stores found their profits in just the 200 or 300 items which are now price leaders. These profits are substantially reduced. Thus price competition had a pulverizing effect on the small independent operators and has created a plethora of midget stores which look for their profits in such services as telephone orders, delivery, and credit. Through the extension of these amenities they are able to charge somewhat higher

prices, but their volume is small. Some have been able to build up profitable meat departments, a weakness of many chain stores.

Similarly the larger independent store has concentrated on articles that promise larger margins than the highly competitive standard groceries. In various ways specialty departments, meat counters, service features, and co-operative buying have contributed to keeping the efficient operator in business.

The chain stores had perhaps the most difficult problem to face, in so far as the chain store principle involves both the price appeal and a large number of stores. The recent consolidation of smaller outlets and the opening of large super-markets has been of necessity rather than by preference. It has undoubtedly been accompanied by tremendous investment losses. But it has restored the ability of the chain store to compete on a price basis and to fight the super-market with its own weapon. Out of the ashes of the old-fashioned corner grocery chain has risen the new super chain phenix combining an unusual buying capacity with a tremendous sales volume per store. To its rivals the newcomer is more of a threat than the independent super. Its weapon, the private brand, is the dyna-

## Price Variations of 68 Nationally Advertised Grocery Products at Super-markets, Chain Stores, and Independent Stores in a Large Southern City

*(Percentage variations from the "standard price," average price at which most sales of an item were made; Spring, 1940; key to secondary column headings at foot of table.)*

| Product | Size | Standard Price | Chain Super-Market | Chain Stores | | | Independent Super-Markets | | | Other Large Independents | | | Small Independent Stores | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Cents | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
| *Coffee* | | | | | | | | | | | | | | | | | | | | | | |
| Maxwell House | 1 lb. | 25 | 0 | — 2 | 7 | .. | 3 | — 2 | 0 | 10 | — 5 | 8 | — 3 | 8 | — 6 | 6 | — 2 | 8 | 15 | 15 | 7 | 7 |
| Chase & Sanborn | 1 lb. | 23 | — 9 | 5 | 0 | —10 | —10 | —10 | — 5 | 10 | —10 | 4 | 9 | 0 | 8 | 0 | 7 | 0 | 17 | .. | 0 | 5 |
| Beech Nut | 1 lb. | 29 | 0 | 9 | 5 | 0 | — 8 | —10 | — 8 | — 5 | — 8 | — 9 | —15 | 0 | 0 | — 2 | — 8 | 0 | .. | 10 | 0 | 10 |
| Royal Arms | 1 lb. | 25 | .. | 8 | .. | — 3 | — 4 | — 3 | 0 | 16 | 0 | — 1 | .. | 0 | 4 | 8 | 0 | 0 | .. | .. | 0 | — 4 |
| *Sonka* | 1 lb. | 35 | 0 | 0 | 5 | — 6 | 14 | — 6 | — 6 | 20 | —11 | — 3 | 6 | 0 | 0 | 8 | 0 | 0 | .. | 12 | 4 | 3 |
| Tea | | | | | | | | | | | | | | | | | | | | | | |
| *Lipton* | ¼ lb. | 25 | — 8 | 0 | 8 | — 8 | —10 | — 8 | — 8 | 0 | —10 | — 9 | 0 | — 3 | 0 | 0 | — 3 | — 8 | — 8 | — 3 | 0 | — 8 |
| Lipton | ½ lb. | 45 | .. | 0 | 9 | 0 | — 4 | — 2 | — 7 | 9 | 0 | — 8 | .. | 0 | 4 | 0 | 0 | 0 | — 9 | 4 | 5 | 0 |
| Lipton | 1 lb. | 89 | .. | .. | .. | 0 | 0 | — 5 | —11 | 8 | — 1 | —10 | .. | .. | .. | — 5 | .. | .. | .. | .. | .. | .. |
| Tetley | 1¼ oz. | 10 | —10 | 0 | 0 | 0 | 0 | —10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .. | .. | 0 | .. | .. |
| Tetley | ¼ lb. | 25 | —16 | —32 | 0 | — 6 | —20 | — 9 | —18 | 0 | — 8 | — 8 | .. | — 4 | .. | .. | — 8 | .. | .. | 0 | .. | — 8 |
| *Tetley* | ½ lb. | 45 | .. | — 9 | .. | 2 | —10 | — 5 | —13 | 9 | — 2 | — 8 | .. | 0 | 0 | 0 | 0 | .. | .. | 0 | .. | .. |
| Tender Leaf | 3½ oz. | 17 | 0 | 18 | 12 | 0 | 0 | 0 | 0 | 24 | 0 | 0 | 18 | — 1 | 12 | 0 | 12 | 6 | .. | 6 | 12 | 12 |
| Tender Leaf | 7 oz. | 35 | .. | 12 | .. | 0 | — 6 | — 6 | .. | 12 | — 9 | — 6 | .. | — 9 | 0 | 0 | 12 | .. | .. | 0 | 0 | 0 |
| Cocoa | | | | | | | | | | | | | | | | | | | | | | |
| Hershey | ½ lb. | 10 | —10 | —10 | 0 | —10 | 0 | 0 | 0 | 20 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 20 | 0 |
| *Hershey* | 1 lb. | 17 | .. | —12 | .. | —12 | — 6 | —12 | —12 | .. | 0 | —13 | .. | —12 | —12 | 12 | 0 | —12 | 1 | .. | 0 | 6 |
| Baker | ½ lb. | 10 | —20 | 0 | 0 | —15 | 0 | 0 | 0 | 40 | — 3 | 0 | .. | 0 | 0 | 20 | 0 | .. | .. | 20 | .. | 0 |
| *Baker* | 1 lb. | 17 | —12 | .. | 0 | —12 | — 6 | —12 | —12 | .. | — 6 | —12 | —12 | —12 | .. | 12 | 0 | .. | .. | 0 | .. | 6 |
| **Average** | | | — 8 | — 1 | 4 | — 5 | — 4 | — 6 | — 6 | 12 | — 4 | — 4 | 0 | — 2 | 0 | 5 | 1 | — 1 | 3 | 5 | 4 | 2 |
| Cereal | | | | | | | | | | | | | | | | | | | | | | |
| Kellogg Corn Flakes | 8 oz. | 8 | —25 | — 6 | —18 | —25 | —12 | —20 | —18 | 25 | —23 | —15 | — 6 | —12 | 20 | —10 | 0 | — 6 | 0 | .. | 0 | 0 |
| Kellogg All Bran | 11 oz. | 2 for 25 | — 8 | 0 | 0 | — 4 | 0 | — 8 | 0 | 15 | — 4 | 0 | 4 | .. | 12 | 4 | 4 | 0 | 20 | 10 | 20 | 20 |
| Kellogg Pep | 10 oz. | 2 for 25 | — 8 | 0 | .. | —13 | — 8 | —20 | 0 | 12 | — 6 | — 3 | 8 | 8 | 12 | 8 | 0 | .. | —20 | .. | 3 | —25 |
| *Shredded Wheat* | 12 oz. | 10 | 0 | 25 | 0 | —10 | 0 | — 3 | —10 | 20 | 0 | 0 | 30 | 5 | 25 | 5 | 10 | 23 | 20 | 30 | 20 | 30 |
| Quaker Oats | 1 lb., 4 oz. | 2 for 17 | 0 | 18 | 5 | 0 | 12 | 0 | 0 | 0 | 0 | 12 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 12 | 18 | 18 |
| Post Bran Flakes | 8 oz. | 10 | —17 | 25 | 0 | —15 | — 5 | —17 | — 5 | 25 | —15 | — 5 | 30 | 0 | 0 | 30 | 0 | 22 | 30 | 25 | 0 | 0 |
| Wheatena | 22 oz. | 25 | — 8 | — 8 | 0 | — 1 | — 8 | — 8 | 0 | 16 | — 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | .. | .. | 0 | 0 |
| Cream of Wheat | 14 oz. | 15 | —13 | —20 | 0 | 0 | 0 | — 7 | 0 | 13 | — 3 | — 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Rice Crispies* | 5½ oz. | 2 for 25 | — 8 | 0 | — 4 | 0 | — 8 | — 4 | 0 | 12 | — 6 | 0 | 4 | 0 | 12 | 4 | 0 | 0 | 4 | 4 | 4 | 4 |
| Post Toasties | 8 oz. | 8 | —25 | — 6 | — 8 | —25 | — 8 | —25 | — 8 | 0 | —27 | — 8 | — 6 | — 6 | — 6 | — 6 | 0 | 25 | 25 | 0 | 0 | 0 |
| Grape Nuts | 12 oz. | 15 | — 7 | 20 | 0 | —10 | — 7 | 0 | — 7 | 13 | — 7 | — 7 | 0 | 0 | 0 | 16 | 0 | 0 | 7 | 20 | 0 | 0 |
| *Gold Medal Flour* | 5 lb. | 27 | 0 | 15 | 8 | 0 | — 4 | — 8 | — 8 | 8 | — 4 | 4 | 0 | 0 | 4 | 0 | — 4 | — 4 | .. | .. | 8 | 0 |
| Pillsbury Flour | 5 lb. | 27 | 0 | 10 | 7 | 0 | 7 | — 6 | — 7 | 26 | 0 | 7 | 0 | 7 | — 4 | 0 | —10 | 0 | — 7 | 7 | 7 | 0 |
| Pillsbury Flour | 10 lb. | 50 | — 2 | 14 | 6 | — 1 | — 4 | — 6 | — 4 | 18 | — 8 | 6 | .. | 12 | .. | .. | —10 | 6 | — 2 | .. | — 2 | 0 |
| Gold Medal Flour | 10 lb. | 50 | — 2 | 14 | 6 | 0 | — 6 | — 6 | — 6 | 18 | 0 | 8 | .. | 10 | .. | .. | —10 | — 4 | .. | .. | .. | 0 |
| Gold Medal Flour | 20 lb. | 93 | 0 | .. | .. | .. | — 4 | — 4 | — 4 | .. | — 3 | 4 | .. | 11 | .. | .. | — 8 | .. | .. | .. | .. | .. |
| *Aunt Jemima Pancake Flour* | 1¼ lb. | 12½ | —20 | 20 | 0 | 0 | 0 | —20 | 0 | 20 | —20 | — 8 | 5 | 20 | 12 | 20 | 5 | 20 | 20 | .. | 12 | 20 |
| **Average** | | | — 8 | 8 | 0 | — 7 | — 3 | —10 | — 4 | 15 | — 8 | — 1 | 6 | 5 | 8 | 6 | 0 | 7 | 9 | 10 | 7 | 4 |

Key to Secondary Column Headings: 1—Super-market of a large national chain; self-service and cash-and-carry. 2—Neighborhood unit of a sectional chain; *essentially self-service with negligible credit features.* 3—*Neighborhood* unit of the national chain which operates store No. 1; it is in a residential *section of a higher class community,* selling on a cash-and-carry basis. 4—Large self-service unit of a local chain store; cash-and-carry. 5—Independent super-market, self-service; several other super-markets are owned by the same management; groceries are *prominently featured in advertisements; no services extended.* 6—Super-market of the multiple unit type; *cash-and-carry; prices follow local* competition; located on a main thoroughfare with strong competition nearby. *7—Independent super-market, largest volume in the city;* located far outside the business district; cash-and-carry with self-service. 8—Complete food store in the heart of the city, catering to the highest income group; business is carried on over the counter; extends credit, has large telephone and delivery service. 9—Large independent store with self-service, but credit and delivery *features.* 10—Large independent store with self-service, cash-and-carry, at

mite that undermines also the national producers' position in the food market.

The extent to which private brands fill the shelves in chain super-markets is unprecedented in the history of food distribution. In national chains about half of the stacks are filled with the store's own labels. One Western chain is credited with carrying more than 200 of its own manufactured products. Some of the leading chains are reported to plan co-manufacturing and co-distribution of private brand items.

The chains claim that their private brand business has a defensive character. It does appear that wherever price cutting of nationally known products reduces margins below profitability the private brands gain ground. Smaller chain stores that cannot afford brands of their own carry so-called off-brand merchandise, seconds, or less advertised articles of national manufacturers, or they stock to an increasing extent other items with higher mark-ups. For the same reason drugs, hardware, and even dry goods items have been carried to the grocery store. Yet private brands of the larger chains are more than defenses against price cutting. They are a direct challenge to the nationally advertised item and to the manufacturer-

*(Continued on page 46)*

## Price Variations of 68 Nationally Advertised Grocery Products at Super-markets, Chain Stores, and Independent Stores in a Large Southern City—*Continued*

*(Percentage variations from the "standard price," average price at which most sales of an item were made; Spring, 1940; key to secondary column headings at foot of table.)*

| Product | Size | Standard Price | Chain Super-Market | Chain Stores | | | Independent Super-Markets | | | Other Large Independents | | | Small Independent Stores | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Cents* | *1* | *2* | *3* | *4* | *5* | *6* | *7* | *8* | *9* | *10* | *11* | *12* | *13* | *14* | *15* | *16* | *17* | *18* | *19* | *20* |
| CANNED SOUP | | | | | | | | | | | | | | | | | | | | | | |
| Campbell's Vegetable | 10½ oz. | 10 | —15 | 0 | 0 | —15 | —15 | —15 | —13 | 0 | 0 | 0 | 0 | —15 | — 3 | —15 | 0 | 0 | —15 | 0 | 0 | 0 |
| Campbell's Chicken | 10½ oz. | 12 | —17 | 0 | 0 | —17 | —17 | —17 | —17 | —17 | 0 | 0 | 0 | —17 | 0 | —17 | 0 | 0 | —17 | 0 | 0 | 0 |
| *Campbell's Tomato* | *10½ oz.* | *10* | —14 | 0 | —14 | —15 | —15 | —15 | —25 | —14 | —20 | 0 | —14 | —25 | —12 | —20 | —14 | 0 | —15 | —17 | 0 | 0 |
| Campbell's Mushroom | 10½ oz. | 12 | —17 | —17 | 0 | —17 | —17 | —17 | —17 | 0 | 0 | —17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Heinz Vegetable | 1 lb. | 2 for 25 | 0 | 20 | 3 | 0 | 10 | 0 | 0 | 19 | 0 | 0 | 20 | 0 | 20 | 20 | 8 | 16 | 0 | 20 | 20 | 20 |
| *Heinz Vegetable* | *10 oz.* | *3 for 25* | *8* | .. | .. | *0* | *0* | *0* | *0* | .. | *0* | *0* | *20* | *0* | *20* | .. | *8* | *20* | *20* | *20* | *20* | .. |
| Heinz Chicken | 1 lb. | 15 | —16 | 0 | —10 | —16 | —16 | —16 | —13 | 0 | —16 | —16 | 0 | 0 | 0 | 0 | — 7 | — 2 | .. | 0 | 0 | 0 |
| *Heinz Tomato* | *1 lb.* | *2 for 25* | 0 | 20 | 4 | 0 | 8 | 0 | 0 | 19 | 0 | 0 | 20 | 0 | 20 | 20 | 16 | 16 | .. | 20 | 20 | 20 |
| Heinz Tomato | 10 oz. | 3 for 25 | 8 | .. | .. | 0 | 0 | 0 | 0 | .. | 0 | 0 | 20 | 0 | 20 | .. | *8* | *20* | *20* | *20* | *20* | .. |
| Heinz Mushroom | 1 lb. | 2 for 25 | 0 | 20 | 2 | 0 | 13 | 0 | 0 | 20 | 0 | 0 | 20 | 0 | 20 | 20 | 8 | 16 | .. | 20 | 20 | 20 |
| *Heinz Mushroom* | *10 oz.* | *3 for 25* | *8* | .. | .. | *0* | *0* | *0* | *0* | .. | *2* | *0* | *20* | *0* | *20* | .. | *8* | *12* | .. | *20* | *20* | .. |
| PORK AND BEANS | | | | | | | | | | | | | | | | | | | | | | |
| *Campbell's Pork and Beans* | *1 lb., 7 oz.* | *19* | .. | *0* | .. | *5* | *10* | *10* | *0* | .. | *21* | *0* | .. | .. | .. | .. | .. | *25* | *4* | *0* | .. | .. |
| Campbell's Pork and Beans | 1 lb. | 2 for 15 | — 4 | 0 | 8 | 0 | 8 | — 4 | 0 | 20 | 20 | 0 | 20 | .. | 8 | .. | 0 | 20 | 20 | 4 | 20 | 20 |
| Heinz Pork and Beans | 1 lb., 2 oz. | 15 | — 9 | 0 | .. | 0 | — 9 | — 9 | 0 | —14 | —20 | —14 | — 9 | — 9 | —14 | — 9 | 0 | 0 | —20 | —14 | —14 | —20 |
| Heinz Pork and Beans | 1 lb., 11½ oz. | 19 | — 7 | .. | 0 | 0 | —10 | — 7 | —16 | .. | 0 | .. | 5 | —10 | .. | 0 | 10 | .. | .. | 5 | 0 | 0 |
| Heinz Pork and Beans | 12 oz. | 10 | —10 | 0 | .. | 0 | 0 | —17 | —25 | —17 | —17 | 0 | 0 | —17 | —17 | —17 | 0 | 0 | —25 | —10 | 0 | 0 |
| *Friend Pork and Beans* | | *15* | — 7 | .. | 0 | .. | 13 | —17 | —17 | 0 | —20 | .. | 0 | —17 | —17 | 0 | 0 | .. | .. | 0 | 0 | —13 |
| **Average** | | | **— 6** | **4** | **— 1** | **— 5** | **— 4** | **— 7** | **— 8** | **1** | **— 3** | **— 3** | **8** | **— 7** | **4** | **— 1** | **3** | **10** | **— 5** | **5** | **8** | **4** |
| CANNED FRUIT | | | | | | | | | | | | | | | | | | | | | | |
| *Libby Pears* | *No. 2½* | *21* | 10 | 0 | .. | .. | 14 | 0 | —10 | .. | .. | —10 | 0 | 5 | .. | 0 | 15 | .. | .. | .. | .. | .. |
| Musselman Apple Sauce | 1 lb., 1 oz. | 8½ | .. | 18 | .. | —12 | — 4 | —23 | —40 | 18 | 18 | 18 | .. | 0 | .. | —15 | .. | 41 | .. | 18 | .. | 18 |
| Del Monte Pears | No. 2½ | 21 | — 5 | .. | 19 | 0 | 10 | 0 | 0 | 10 | — 5 | 19 | .. | 5 | .. | 0 | 10 | .. | 0 | .. | 10 | 10 |
| *Del Monte Peaches* | *No. 2½* | *19* | — 4 | *0* | *32* | —14 | *0* | —10 | —10 | *20* | —10 | —10 | .. | 0 | — 4 | .. | 10 | 10 | .. | .. | — 4 | 0 |
| Libby Peaches | No. 2½ | 19 | 0 | .. | .. | .. | — 2 | —10 | —10 | 0 | 31 | —10 | 10 | 0 | .. | —22 | 20 | .. | .. | .. | .. | .. |
| Del Monte Pineapple | No. 2½ | 25 | —16 | —16 | 0 | —24 | —16 | —16 | —20 | 0 | .. | .. | 0 | —14 | .. | .. | 8 | .. | .. | .. | 0 | — 8 |
| Dole Pineapple | 1 lb., 14 oz. | 23 | — 9 | .. | —38 | .. | .. | — 9 | —17 | 12 | .. | .. | .. | 0 | 9 | .. | .. | .. | .. | 9 | .. | 0 |
| Del Monte Fruit Cocktail | No. 2½ | 23 | 0 | .. | 26 | 52 | 9 | 0 | .. | 17 | .. | .. | 40 | 9 | .. | .. | .. | .. | .. | .. | 9 | 9 |
| *Libby Fruit Cocktail* | *No. 2½* | *23* | *0* | .. | .. | .. | *9* | — 2 | *0* | *16* | .. | .. | .. | .. | .. | .. | 24 | .. | .. | .. | .. | .. |
| Libby Apricots | No. 2½ | 23 | —17 | .. | .. | .. | 0 | 0 | — 9 | 9 | .. | .. | .. | — 9 | .. | .. | 0 | .. | .. | .. | .. | .. |
| CANNED VEGETABLES | | | | | | | | | | | | | | | | | | | | | | |
| Libby Peas | 1 lb., 1 oz. | 12½ | —25 | 0 | .. | .. | — 8 | 0 | —25 | 0 | .. | .. | .. | 7 | .. | 0 | 5 | .. | .. | 20 | .. | .. |
| Green Giant Peas | 1 lb., 1 oz. | 15 | 13 | 13 | 26 | 0 | — 3 | — 3 | — 3 | 13 | 13 | .. | 20 | 7 | 13 | — 3 | 26 | 26 | — 3 | 20 | 20 | 20 |
| Del Monte Peas | 1 lb., 1 oz. | 15 | 27 | .. | .. | *0* | —10 | *13* | *— 3* | *0* | *0* | .. | *33* | *— 3* | .. | — 3 | 20 | .. | .. | .. | 0 | .. |
| Del Monte Tomatoes | 1 lb., 3 oz. | 15 | 7 | 0 | .. | —17 | 0 | —10 | .. | 0 | 0 | .. | 0 | — 3 | .. | .. | .. | .. | .. | .. | 0 | 0 |
| *Del Monte Corn* | *1 lb., 4 oz.* | *12½* | —30 | 20 | 20 | 0 | .. | .. | .. | 4 | 0 | 25 | 20 | —10 | .. | .. | .. | .. | .. | .. | 20 | 20 |
| Franco-American Spaghetti | 15¾ oz. | 10 | —17 | —17 | 0 | —17 | —10 | 0 | —17 | 20 | —15 | —17 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 0 | 0 | 0 |
| Heinz Spaghetti | 1 lb., 1 oz. | 2 for 25 | —33 | —25 | .. | — 6 | —33 | —18 | 0 | 25 | 0 | 0 | —25 | 25 | 25 | 25 | 8 | 25 | — 6 | 0 | 4 | 4 |
| **Average** | | | **— 6** | **— 1** | **11** | **— 3** | **— 4** | **— 6** | **—12** | **10** | **3** | **— 2** | **10** | **1** | **9** | **— 2** | **17** | **20** | **— 2** | **11** | **7** | **7** |

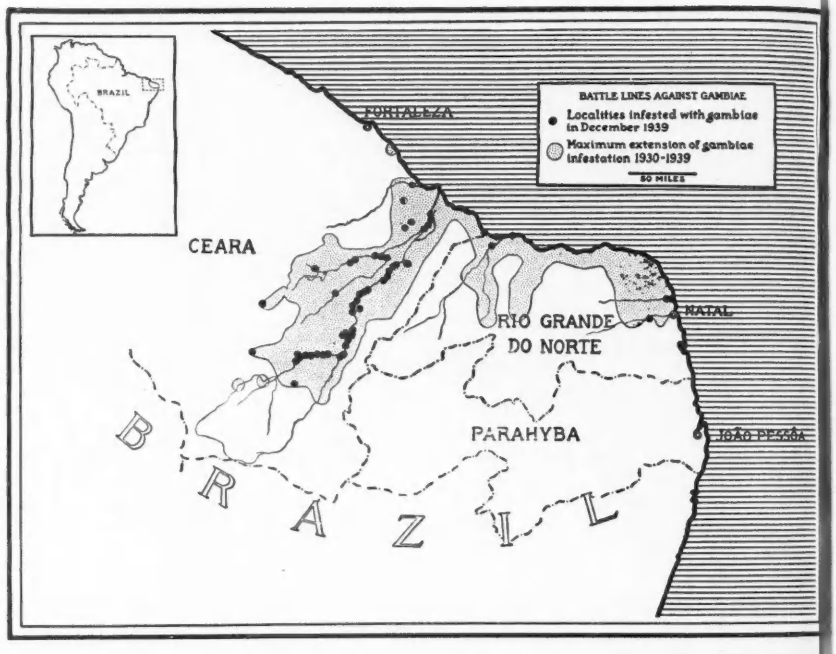
*busy intersection, small shopping center.* *11—Independent market in a middle-class residential neighborhood, a small combination store with over-the-counter service, some credit and delivery.* 12—Small independent store affiliated with a co-operative with no direct buying privileges; credit and delivery services extended; self-service. 13—Neighborhood store on a side street, extending credit and delivery services. *14—Small neighborhood store at a busy intersection;* extends credit and delivery services to middle-class clientele. 15—Small independent store with middle-class clientele, credit and delivery services. 16—In a poor section adjacent to the Negro neighborhood; store extends credit and is self-service; clientele both Negroes and Whites; delivery service optional. *17—A* small independent store in the business part of the Negro section, credit and *delivery.* *18—A neighborhood store in the residential* section with extended delivery and credit services to higher-class clientele; prices are not posted and not always uniform. 19—A curb market with considerable volume in a lower middle-class neighborhood; little credit but free delivery. 20—A small independent store between a high-class and a working-class section; credit and delivery.

# THE INVASION *of the* GAMBIAE

## *The Battle of Brazil to Repulse "Anopheles Gambiae" Dreaded Carrier of Malaria*

*From "The Rockefeller Foundation, A Review for 1939" by*

RAYMOND B. FOSDICK
*President of the Foundation*




A YEAR ago the arrival and spread in Brazil of the dreaded malaria-carrying mosquito, Anopheles gambiae, was reported in this Review.* It came from Africa, apparently by airplane or on a fast French destroyer, and was first discovered in 1930 in Natal, Brazil, by a member of the staff of the Rockefeller Foundation. Since that time it has spread over 300 miles to the west following the prevailing winds, and the infested area now covers 12,000 miles.

Many public health workers throughout the Americas are awaiting with anxiety the outcome of the campaign that has been organized against this mosquito. These workers realize that one of the most serious health problems facing their own countries is involved in the possibility of gambiae continuing its invasion and sooner or later reaching their territories. The tragic result of such a spread cannot be overstated. A distinguished malariologist, Dr. M. A. Barber, has recently said: "This invasion of gambiae threatens the Americas with a catastrophe in comparison with which ordinary pestilence, conflagration and even war are but small and temporary calamities. Gambiae literally enters into the very veins of a country and may remain to plague it for centuries. Even the penetration of yellow fever into the Orient might be a lesser evil, because its vector is domestic and more easily controlled."

Hardly a year after landing in America, gambiae was causing severe outbreaks of malaria near Natal, and by July 1931 it had reached a point 115 miles along the coast to the northwest. The great drought in 1932 and 1933 must have reduced its numbers and checked its progress, for several years passed without further startling evidences of its presence.

Nevertheless, the invasion continued slowly up the coastal plain at an average speed of about 40 miles a year and it is likely that the insect was often carried by boats from point to point along the shore. The interior of the State of Rio Grande do Norte in this section is extremely arid at all times, and the mosquito failed to penetrate it, while the flat alluvial shelf, along which it succeeded in breeding its way, is in several places so narrow that the work of 15 or 20 men would have been enough to stop the progress of gambiae at any time during these early years.

That gambiae did not spread southward from Natal during all this time is a piece of good fortune not easy to explain. It is true that the prevailing winds are in the opposite direction, but gambiae might have made progress against the wind in cars, boats, and

* The "Review" referred to is "The Rockefeller Foundation, A Review for 1938."

trains. Until recently no attempt was made to fumigate these vehicles.

By 1937 the invader had reached the well-populated valleys to the northwest, and calamitous epidemics followed in 1938, arousing the government to action. Since the necessary expenditures were far beyond the local resources of the area already invaded, the national government of Brazil assumed the responsibility. In 1939 it increased its first appropriation of $250,000 to $500,000, and the plans for 1940 provide for a further increase. The Foundation in 1939 appropriated $100,000 for this purpose, and the amount set aside in the 1940 budget is $230,000.

The actual field service of the campaign against the gambiae is being carried on by the personnel of the Foundation in collaboration with the Brazilian government. The Foundation has assumed the responsibility of direction and administration. Early in 1939 the Malaria Service of the Northeast (of Brazil) was created by government decree and began the task of organizing a field force to prevent further extension of the gambiae, to minimize the effects of its activity in the area already infested and to reduce its range.

The first results in 1939 were frankly disappointing. The organization of the Malaria Service of the Northeast coincided with the beginning of the rainy season, when the gambiae advances by leaps and bounds, and this, together with the lack of personnel trained in methods of mosquito control, prevented any early apparent results of the campaign. As was anticipated, widespread epidemics of malaria occurred, and during the first few months of the Service some 114,000 persons were treated for the disease. During these early months the only visible consequence of activity was the reduction of mortality from malaria through medication of acute cases.

### Spread Lessened

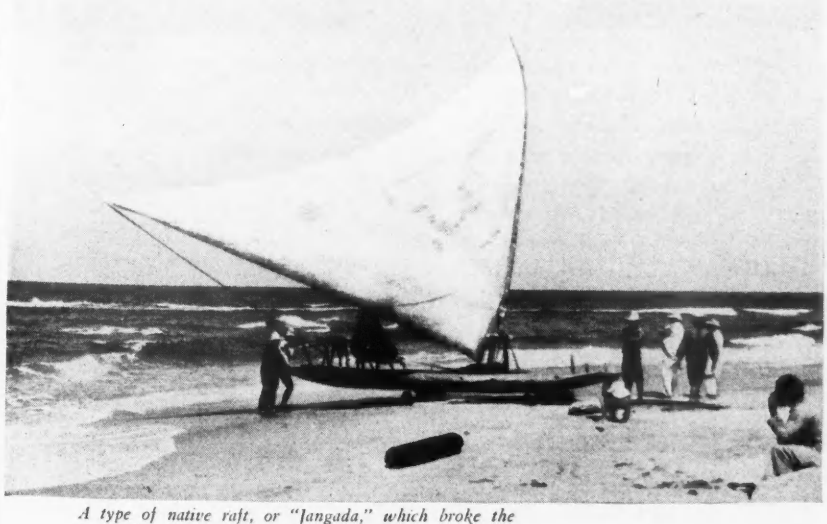
By the beginning of July, however, a staff of over 2,000 doctors, technicians, scouts, inspectors, guards, and laborers, trained in methods of control, was available, and even though the rainy season was unusually prolonged, appreciable results were obtained, not only in minimizing the further spread of gambiae in the frontier districts, but also in reducing the incidence of the mosquito in certain heavily infested sections to a point where careful surveys repeatedly failed to reveal the presence of either larvae or adults.

In this campaign both climate and physical geography promise to be indispensable allies. The rainy season is restricted to four months out of twelve, that is, from February through May, and gambiae is a mosquito which breeds mainly in residual rain-water pools, shallow, open to the sun and without vegetation. It does not lay eggs in permanent or deep water, in running, salty or shaded water, or in water supporting aquatic vegetation. On the other hand, it takes advantage of every little depression in the ground, such as wheel tracks or hoofprints, no matter how shallow or small, which can present a water surface for eight or nine days.

During the rainy season, with its almost daily showers, gambiae becomes a formidable antagonist. But for eight months in the year, the heat of the tropical sun, the strong continuous trade winds, and the low humidity combine to dry up all shallow surface waters and to make life for the gambiae precarious and of short duration. Potential breeding places are reduced to disconnected pools in the beds of the larger rivers, none of which maintains a flow in Summer. Most of the higher rolling country back from the coast is practically non-infectible by gambiae. Its arid, stony soil supports scrub vegetation composed of a resistant thorny bush mingled with cactus. The region is without water for larvae and without shelter for gambiae adults. The sparse population of the interior is therefore closely bound to the river systems and so also is the gambiae mosquito throughout the Summer.

The plans of the campaign against gambiae sound like the plans of an army on defense. The frontiers of the infested region are defined by fumigation posts on all the outgoing roads. A 10-mile zone beyond the gambiae's farthest limit of advance is to be kept non-infectible, which from the mosquito's point of view is the "scorched earth" policy. Within this zone, as well as within the area already infected, all breeding places of the mosquito must be eliminated or treated with Paris

*(Continued on page 43)*



*A type of native raft, or "Jangada," which broke the quarantine by carrying gambiae larvae in its water cask.*

# RURAL RETAILING TRENDS IN ILLINOIS, 1926-1938

ROBERT V. MITCHELL
*Department of Business Organization and Operation, University of Illinois*

ONE of the most important changes taking place in our marketing system is the decided shifting of retail trade away from small villages to the larger trading centers. Our country was laid out under a system usually referred to as a "railroad and horse geography." In addition to the large commercial centers, county seats were established at intervals of twenty or thirty miles. Between these county seats small villages were located every four to six miles. Then, into this system of "railroad and horse geography," came a new factor.

By 1910, farmers had begun to buy automobiles, and with the automobile came the improvement of roads. By 1915, motor-car registration in Illinois amounted to 180,832. By 1925, the number had increased to 1,263,177, and in 1938, registration totalled 1,780,865 motor-cars. In this State, the building of surfaced roads came late, and the movement did not get well under way until after 1920.

After it began, however, it proceeded with great rapidity. In 1914 only 54 miles of surfaced roads were built by the State and by counties and municipalities under State supervision. In contrast, there were only four years from 1923 to 1937 in which the total mileage of surfaced roads completed was less than 1,000. At the end of 1937 the total mileage of public highways of record in Illinois was approximately 102,500, of which 16,775 miles had been surfaced.

Thus a fundamental change, namely, the increased mobility of trade result-

H. ARMSTRONG ROBERTS

## I. Sales Trends of Rural Stores by Size of Village, 1926-1938

*(Reported by retail stores in 72 villages in Illinois)*

| Sales Trend 1926-1938 | All Villages | | Villages by Population Classes | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Under 400 | | 400-999 | | 1,000-2,499 | |
| | *Number of Stores* | *Per Cent of Stores* | *Number of Stores* | *Per Cent of Stores* | *Number of Stores* | *Per Cent of Stores* | *Number of Stores* | *Per Cent of Stores* |
| Definite Loss | 182 | 65 | 38 | 78 | 71 | 67 | 73 | 58 |
| Slight Loss | 43 | 15 | 9 | 18 | 17 | 16 | 17 | 13 |
| No Change | 20 | 7 | 1 | 2 | 7 | 7 | 12 | 9 |
| Slight Increase | 19 | 7 | 1 | 2 | 5 | 5 | 13 | 10 |
| Definite Increase | 18 | 6 | .. | .. | 6 | 6 | 12 | 9 |
| All Reports | 282[1] | 100 | 49 | 100 | 106 | 100 | 127 | 100 |

[1] Does not include 103 dealers in business less than 12 years nor 4 dealers unable to draw definite conclusions.

## II. Trends in Number of Stores by Size of Village and Kind of Business, 1926-1938

*(Source:* Dun & Bradstreet, Inc., *Reference Book)*

| Kind of Business | All Villages | | | Villages by Population Groups: Under 400 | | | 400–999 | | | 1,000–2,499 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1926 Number of Stores | 1938 Number of Stores | Per Cent Change | 1926 Number of Stores | 1938 Number of Stores | Per Cent Change | 1926 Number of Stores | 1938 Number of Stores | Per Cent Change | 1926 Number of Stores | 1938 Number of Stores | Per Cent Change |
| Food | 302 | 229 | — 24 | 54 | 34 | — 37 | 100 | 81 | — 19 | 148 | 114 | — 23 |
| General | 129 | 110 | — 15 | 59 | 45 | — 24 | 48 | 42 | — 13 | 22 | 23 | + 5 |
| Dry Goods | 89 | 50 | — 44 | 5 | .. | —100 | 26 | 14 | — 46 | 58 | 36 | — 38 |
| Hardware and Implements | 110 | 93 | — 16 | 29 | 14 | — 52 | 44 | 47 | + 7 | 37 | 32 | — 14 |
| Drugs | 39 | 36 | — 8 | 2 | 2 | .. | 18 | 13 | — 28 | 19 | 21 | + 11 |
| Furniture | 44 | 29 | — 34 | 2 | 3 | + 50 | 22 | 9 | — 59 | 20 | 17 | — 15 |
| Lumber | 93 | 75 | — 19 | 13 | 8 | — 39 | 38 | 32 | — 16 | 42 | 35 | — 17 |
| Automotive | 220 | 293 | + 33 | 41 | 47 | + 15 | 73 | 100 | + 37 | 106 | 146 | + 38 |
| Liquor | .. | 29 | .. | .. | 4 | .. | .. | 11 | .. | .. | 14 | .. |
| Other Retail | 94 | 95 | + 1 | 5 | 5 | .. | 33 | 22 | — 33 | 56 | 68 | + 21 |
| All Stores | 1,120 | 1,039 | — 7 | 210 | 162 | — 24 | 402 | 371 | — 8 | 508 | 506 | .. |

ing from the growth of automobile ownership and the accompanying development of the hard road system, began to affect the business of retailers in the agricultural villages of the State. In general, the stores which have suffered most from this trend are those in the small rural communities, that is, places of 2,500 population or less. Practically all studies of this subject agree that this shift in consumers' buying habits has been taking place for a number of years and that the change has been particularly rapid since 1920. Since 1930, very few attempts have been made to determine the trends in rural retailing, and the future of the small town retailer has remained the subject of much speculation.

To determine and explain these trends, the Bureau of Business Research of the University of Illinois has recently completed an analysis of rural retailing in that State. The area covered includes eight retail trades in 72 small towns and villages (incorporated and unincorporated places of 2,500 population or less) located principally in agricultural areas of the State. Practically all dealers handling the older types of merchandise—groceries, hardware, drugs, dry goods, shoes, clothing, farm implements, and similar lines—were interviewed. A few garages and filling stations were visited, but eating places and liquor stores were not included in the Illinois study. Approximately 35 per cent of the total number of retail stores in the 72 villages covered in this survey were visited. Obviously, the sample was much greater for the older types of merchandise.

This study, which covers the period from 1926 to 1938, is the second study of its type completed by the Bureau. The first investigation, published by the Bureau in 1928, covered the period from 1913 to 1926. The present study provides an insight into the past and present trends in rural retailing, an explanation of the changes taking place, and an indication of probable future developments.

In the Illinois survey, 282 dealers had been in business at least twelve years and were able to compare their 1938 sales with their 1926 volume (table I). Of these 282 dealers, 64.6 per cent reported a definite loss in volume, and 15.2 per cent a slight loss. "Definite loss" was so defined that the dealers classified in this group were those who had suffered losses greater than the decline in prices.[1]

[1] According to *Standard Trade and Securities, Statistics, D-28*, the index of prices paid by farmers shows that prices paid in 1938 were 20.7 per cent below 1926 prices. Therefore, "definite loss" was defined as a loss of 25 per cent or more.

The figures which indicate the trend in sales volume for the single year 1938 provide a somewhat similar picture. Information on the trend in 1938 was desired because, in spite of the fact that many dealers reported that their 1938 volume was much less than their 1926 volume, there was a possibility that their sales had ceased to decline or that they might even be regaining some of the ground lost since 1926. This approach also gave those dealers who had been in business less than twelve years a chance to indicate any observed trends in their sales volume. Of the 365 dealers who reported on the 1938 trend in their sales volume, 33.7 per cent said that their sales were continuing to decrease; 39.5 per cent believed that their sales had levelled out; and 26.8 per cent reported an increase in sales volume.

Obviously, any decided change in the number of village stores in the territory by this survey would have a bearing on the conclusions to be drawn. Accordingly figures for the number of retail establishments in the villages covered for the years 1926 and 1938 were obtained from the Dun & Bradstreet Reference Book. Only a slight decrease, 7.2 per cent, occurred in the number of stores in these villages between 1926 and 1938 (table II). Significant differences among various types of enter-

prises and sizes of village will be discussed later.

The figures presented so far indicate that, in general, the majority of village retailers suffered a decline in sales volume from 1926 to 1938. For most of them, dollar sales volume declined more than prices in this period, indicating an actual physical loss in volume. Moreover, there was a decrease in the total number of retail establishments from 1926 to 1938. Thus, it seems that the shifting of retail trade away from small villages to larger trading centers has continued. Of course, as will be explained later, sales may have decreased for other reasons. It must also be remembered that these conclusions apply in general to all village merchants, regardless of kind of business, size of village, or distance of village from a primary trading center.[2]

In this investigation the villages were divided as follows: small villages, with less than 400 population; medium-sized villages, with from 400 to 1,000 population; and large villages, with from 1,000 to 2,500 population. It is apparent (table I) that as the size of the village increases, the tendency to hold trade also increases. The downward trend in the small villages of less than 400 population seems to be notable. Not only did 96 per cent of these dealers report a decrease in sales, but 77.6 per cent indicated that the loss had been definite—25 per cent or more. In contrast to this group, 57.6 per cent of the dealers in villages having a population of 1,000 to 2,500 reported that they had suffered a definite loss.

The figures shown in table II on the number of stores in 1926 and 1938 also support the conclusion that small villages lost relatively more trade during this twelve-year period than larger villages. The number of stores in small villages covered by this survey decreased 23.8 per cent from 1926 to 1938, as compared with a decrease of 7.7 per cent for medium-sized villages, and a loss of only 0.4 per cent for large villages.

### The Farther the Better

In general village stores located at a greater distance from primary trading centers held their own better than those closer to such centers (table III). The number of stores within ten miles of a primary trading center was small, but the trend in these stores seemed to be definitely downward from 1926 to 1938.

Figures on the trend in 1938 by location of village (table IV) show that villages located from ten to nineteen miles from primary trading centers were losing more business at that time than villages located either less than ten miles or more than nineteen miles from primary trading centers. The inference is that dealers in villages within ten miles of primary trading centers have been faced with the problem of mobility of trade for many years, even before the days of the automobile and the surfaced road. The increased mobility of trade has already caused a great loss of business in these villages, and therefore, the possibility of further loss has been somewhat reduced. More recently, with the increase in automobile ownership and the number of surfaced roads, the mobility of trade has continued to increase. Consequently, villages located at a greater distance from primary trading centers have felt the effect of this increased mobility, and those from ten to nineteen miles away have felt it most.

An important factor in any study of trends in retailing is the type of store (table V). Chain food stores and hardware-implement dealers make the best showing from 1926 to 1938. Hardware and farm implement stores were combined, because it was found that many dealers carried both lines of merchandise. Of the 42 dealers in this group, however, twelve were primarily implement dealers, and from these some indication of the trend in the farm implement business could be obtained. Of the twelve, eight reported that sales had increased, and four reported a loss in business.

These proportions indicate that implement dealers were gaining more

[2] In this survey, three classes of trading centers were recognized: primary trading centers, cities with over 10,000 population; trading centers, from 2,000 to 10,000 population; and secondary trading centers, with 1,000 to 2,000 population.

III. Sales Trends of Rural Stores According to Distance from Primary Trading Center, 1926-1938

*(Reported by retail stores in 72 villages in Illinois)*

| Sales Trend 1926-1938 | All Distances | | Miles from Primary Trading Area: Under 10 | | 10–19 | | 20–29 | | 30 and More | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Number of Stores | Per Cent of Stores | Number of Stores | Per Cent of Stores | Number of Stores | Per Cent of Stores | Number of Stores | Per Cent of Stores | Number of Stores | Per Cent of Stores |
| Definite loss | 182 | 65 | 5 | 56 | 60 | 75 | 94 | 65 | 23 | 47 |
| Slight loss | 43 | 15 | 3 | 33 | 9 | 11 | 21 | 15 | 10 | 20 |
| No change | 20 | 7 | 1 | 11 | 1 | 1 | 13 | 9 | 5 | 10 |
| Slight increase | 19 | 7 | .. | .. | 5 | 6 | 10 | 7 | 4 | 8 |
| Definite increase | 18 | 6 | .. | .. | 5 | 6 | 6 | 4 | 7 | 14 |
| All reports | 282[1] | 100 | 9 | 100 | 80 | 100 | 144 | 100 | 49 | 100 |

[1] Does not include 103 dealers in business less than 12 years nor 4 dealers unable to draw definite conclusions.

H. ARMSTRONG ROBERTS

*Of 282 rural stores which had been in business from 1926 to 1938, only 57 reported that their sales had remained steady or increased during those twelve years.*

trade than any other type of retailer covered in this survey. This increase was to be expected. There has been a trend toward increased use of motorized equipment on the farms of the State, and this would naturally lead to increased sales for implement dealers. In addition, many dealers reported that they were able to compete with dealers in large cities by carrying a wide assortment of parts and by giving quick, efficient repair service.

Thirty of the dealers in the hardware-implement group were primarily hardware dealers. Of the 30, 25 reported a loss, and only five reported sales as steady or increasing. This indicates that the good record of the hardware-implement group was due almost entirely to implement dealers.

Furniture stores also made a better-than-average showing. The good record of this group came almost entirely from furniture stores in large villages. Only one dealer in villages less than 1,000 population reported sales as steady or increasing. In contrast, two-thirds of the furniture stores in villages of more than 1,000 population reported sales as steady or increasing during the twelve-year period covered by this survey. In 1926, 24 furniture stores were operating in the 63 villages having a population of less than 1,000. In 1938, there were only twelve.

This decline may explain, at least in part, the good showing of furniture stores in large villages, as they may have been able to draw trade from the smaller communities that formerly were served by local furniture dealers. Moreover, furniture is almost entirely a shopping line, and the large village stores with their larger assortments of merchandise have been able to hold trade to a greater extent than have the small village stores. The number of furniture stores in large villages decreased 15 per cent from 1926 to 1938.

The trend in sales of food stores indicates that in general they made a relatively good showing from 1926 to 1938, with independent food dealers ranking below average and chain food dealers ranking much above average. In comparison with other kinds of business, food stores made a more favorable record than did general stores, dry goods stores, drug stores, or automobile agencies, but a relatively poorer showing than the hardware-implement group, furniture stores, and "other retail stores."[3] Groceries and meats are primarily convenience goods which are purchased at easily accessible or most convenient places and for which the consumers do not shop. As shown in table II, the number of food stores in villages covered by this survey showed

[3] The "other retail stores" includes mainly three kinds of business, jewelry, feed, and variety stores. The data indicate that the good showing of this group is accounted for by the feed and variety stores.

## IV. Sales Trends of Rural Stores by Kind of Business, 1926-1938

*(Reported by retail stores in 72 villages in Illinois)*

| Sales Trend 1926-1938 | All Stores | Food | | | General | Dry Goods | Hardware and Implements | Drugs | Furniture | Lumber | Automotive | Other Retail |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | All Stores | Independents | Chain Stores | | | | | | | | |
| Definite loss | 182 | 48 | 46 | 2 | 45 | 22 | 18 | 21 | 5 | 8 | 7 | 8 |
| Slight loss | 43 | 8 | 7 | 1 | 8 | 3 | 11 | 4 | .. | 7 | .. | 2 |
| No change | 20 | 6 | 3 | 3 | 1 | .. | 3 | 1 | 4 | 3 | .. | 2 |
| Slight increase | 19 | 6 | 2 | 4 | 1 | 3 | 4 | 1 | 1 | .. | 1 | 2 |
| Definite increase | 18 | 6 | 4 | 2 | 2 | 2 | 6 | .. | .. | .. | .. | 2 |
| All reports | 282[1] | 74 | 62 | 12 | 57 | 30 | 42 | 27 | 10 | 18 | 8 | 16 |

[1] Does not include 103 dealers in business less than 12 years nor 4 dealers unable to draw definite conclusions.

PHOTO BY ELIZABETH R. HIBES

*Among reasons for rural stores' sales decreases, 1926-1938, chain stores in nearby towns ranked after autos and better roads, agricultural depression, and depression psychology*

a marked decline, 24.2 per cent, from 1926 to 1938. Although the decrease in number of food stores was much greater for small villages than for larger villages, it was notable for all sizes.

It is generally believed that the bulkiness of building materials prevents people from buying them at a distance from home. In general this seems to be true, although some items, such as screen wire and paint, can be transported quite easily. Although 83.3 per cent of the lumber dealers reported a smaller volume in 1938 than in 1926, in comparison with other businesses relatively few indicated a definite loss. This was true in villages of all sizes. The percentage decrease in the number of lumber dealers, however, was much greater for villages of less than 400 population than for larger towns (table II).

The general store, the only type of store which is clearly and predominantly rural, made a very poor showing from 1926 to 1938. Of 57 general stores that had been in business at least twelve years, only four reported that sales had remained steady or increased, and these four were located in villages with a population of more than 400. Although the total number of general stores in the villages covered by this survey decreased 14.7 per cent from 1926 to 1938, this decrease occurred entirely in villages of less than 1,000 population.

Drug stores and automobile agencies also rank along with general stores as a class that suffered more than other kinds of business. The earlier survey, published by the Bureau in 1928, found that drug stores had been hurt less by the shift in consumers' buying habits than any other type of store. Contrary to the trend before 1926, drug stores have suffered a great loss in business since that time. In 1926, many druggists reported an increase in sales due to transient trade—automobilists stopping to buy drugs, sundries, or fountain refreshments. In 1938, however, the majority of the druggists said that transient business was relatively unimportant and had little effect on sales volume. They felt that the slight increase due to transient trade was more than offset by the loss caused by trips of local people to primary trading centers. Several dealers even reported a decline in transient business. They explained that fewer people stop in small villages, because of the more rapid means of transportation.

Dry goods and apparel stores should also be included in the group that made a poorer-than-average showing. Dry goods and apparel are shopping lines, and a decline in the sale of such merchandise by village stores would naturally be expected. In view of the many factors affecting sales in villages during the period covered by this report it may seem rather surprising that the percentage of dry goods dealers reporting a loss in sales volume was not greater than actually found.

The importance of the decline in volume of dry goods stores, however, should not be minimized. Not only did 73.3 per cent of these stores report a definite loss, but also the total number of dry goods stores in villages covered by this survey was greater than the decrease in any other kind of business. Many of the retailers explained that trade in clothing and dry goods had gone to the trading centers for years—even before there were any automobiles. Retailers in large villages reported that a number of people in their communities were going to primary trading centers for dry goods and clothing, and that in turn they themselves attract such business from the smaller villages.

### Explanations

To determine the causes of the trends in rural retailing, each dealer was asked to explain the trend of his sales. In tabulating these causes, primary causes were separated from secondary or contributing factors in order to measure the importance of each. Some dealers believed that the trend of their sales was caused primarily by a single factor. Others gave several contributing factors without indicating any one of them as the major cause.

In the opinion of the rural merchant, the most important factor causing a decline in his sales since 1926 was the

increased use of automobiles and improved roads. Approximately two-thirds of the retailers who reported declining sales mentioned this factor as one of the causes (table VII) and about one-third of them believed that it was the most important reason for their losses (table VI). Although the greater mobility of trade was an important factor for all kinds of business except lumber, it was particularly important as a cause for decreased sales in general stores and dry goods stores. Many of the lines sold by these stores are shopping lines. In buying such items, consumers prefer the larger assortments and the opportunity to compare quality and price found in larger cities.

Ranking second in importance as a cause for decreased volume from 1926 to 1938 was the agricultural depression. It is common knowledge that the farmer's welfare is affected both by the prices he receives and by the prices he pays for the things he buys. As previously pointed out, prices paid by farmers decreased 20.7 per cent from 1926 to 1938. According to the index for all farm products published by the United States Department of Agriculture, prices received by farmers for all products they sold decreased 34.5 per cent in the same period. For grain, the important money crop in the territory covered by the survey, prices received by farmers declined 43.5 per cent from 1926 to 1938.[4] Thus, the farmers were relatively worse off in 1938 than in 1936, and the decrease in their purchasing power vitally affected the business of the village merchants.

### Agricultural Depression

Of the retailers reporting a loss in sales volume since 1926, 42.5 per cent mentioned low farm prices as one of the factors, and 14.3 per cent believed that they were the primary cause for such losses. For two kinds of business, lumber and automotive, the agricultural depression was clearly the most important factor affecting sales. Low farm prices were also important as a contributing factor for all kinds of business. More than one-fourth of the dealers in each group mentioned them as one cause of declining sales.

Third in importance was depression psychology. The depression, one of the most influential factors affecting all business since 1929, is actually composed of several factors. For example, such aspects as low farm prices, decreased employment, bank failures, and the like, might be lumped under the one word—depression. One of the less tangible, but in no sense less real, factors included in the depression was depression psychology.

Village merchants, as well as other observers, pointed out that many people curtailed their buying, not because of any decrease in purchasing power, but because they had no confidence in their ability to pay in the future. They were afraid to spend their money. Although depression psychology ranked third in importance as a cause for decreased sales volume, only 11.3 per cent of the dealers stated that it was the primary cause for loss. One-third of the dealers reporting losses in volume since 1926 mentioned it, however, as one of the causes. This factor was noticed most by dry goods and apparel dealers and lumber dealers. This is just what might be expected. During a period of uncertainty, necessities are usually least affected, and expenditures that may easily be foregone are usually curtailed first.

Next in importance as a cause for decreased sales in rural communities were chain stores in primary trading centers.

[4] *Standard Trade and Securities, Statistics, D-28 and D-26.*

V. Primary Causes Reported by Rural Stores for Their Sales Decrease from 1926 to 1938

*(72 villages in Illinois)*

| Primary Causes | All Stores | Independent Grocers | General | Dry Goods | Hardware and Implements | Drugs | Furniture | Lumber | Automotive | Other Retail |
|---|---|---|---|---|---|---|---|---|---|---|
| Automobiles and improved roads | 57 | 12 | 23 | 7 | 6 | 6 | .. | .. | .. | 2 |
| Agricultural depression | 24 | 1 | 1 | 1 | 4 | 3 | .. | 11 | 2 | 1 |
| Depression psychology | 19 | 1 | 2 | 6 | 3 | 3 | .. | 2 | 1 | 1 |
| Increased number of competitors | 12 | 5 | 1 | .. | 3 | 1 | .. | 1 | .. | 1 |
| Chains in primary trading center | 11 | 3 | 6 | .. | .. | 2 | .. | .. | .. | .. |
| Inefficiency | 10 | 3 | 1 | 1 | 1 | 3 | 1 | .. | .. | .. |
| Bank mortality | 7 | 3 | .. | 2 | 1 | 1 | .. | .. | .. | .. |
| Price decline | 7 | .. | 3 | 1 | 3 | .. | .. | .. | .. | .. |
| Decreased employment | 5 | 2 | 2 | .. | .. | .. | 1 | .. | .. | .. |
| Change in credit policy | 2 | 1 | 1 | .. | .. | .. | .. | .. | .. | .. |
| Declining population | 2 | 2 | .. | .. | .. | .. | .. | .. | .. | .. |
| "Local" chains | 2 | 2 | .. | .. | .. | .. | .. | .. | .. | .. |
| Other | 10 | 1 | .. | .. | 4 | 1 | 1 | .. | 2 | 1 |
| All replies | 168[1] | 36 | 40 | 18 | 25 | 20 | 3 | 14 | 5 | 6 |

[1] Does not include 57 dealers who did not report a primary cause for decreased sales.

For purposes of tabulation chain stores were divided into two groups: (1) chain stores located in the villages themselves, and referred to in this survey as "local chains," and (2) chain stores located in primary trading centers.

### Chains in Cities

The effect of the second group, chains in primary trading centers, was very similar to that of automobiles and improved roads, which increase the mobility of trade, thus making it possible for people to go farther and more often. The chain stores may furnish the incentive for people to visit primary trading centers.

In a sense, these factors are interdependent. Without automobiles and hard roads, it would be more difficult for people to patronize chain stores in primary trading centers. On the other hand, some people might not take advantage of the more convenient means of transportation, if it were not for the incentive of buying for lower prices at the chain stores. The advances in transportation, however, provide the more fundamental change. Chain stores are merely one of the incentives that cause more people to drive to primary trading centers. Other incentives may be wider assortment of goods, desire for change, and other services available. Although only 6.5 per cent of the dealers mentioned chain stores in primary trading centers as the primary cause for loss, more than one-fourth, 28.8 per cent, said that they were a contributing factor.

Another factor of considerable importance in some communities was bank mortality, or the loss of banking facilities. In the 72 villages covered by this survey, the number of villages having banks decreased from 52 in 1926 to 25 in 1938.[5] The closing of a bank in a village may have two effects. It may involve financial loss to the community with the result that purchasing power and consequently sales of village merchants decrease, as least temporarily. It may also compel people to drive to other villages or primary trading centers to obtain banking services. It seems logical to assume that some purchases of goods will be made on these visits to larger towns.

Thus the closing of a village bank provides another incentive for people to drive to larger places. Ninety-one dealers who had been in business at least twelve years and were able to compare their 1926 sales with their 1938 volume were located in villages which had no bank in 1938 but had had at least one bank in 1926. Of these, 76 reported a decrease in sales, six said that there had been no change, and nine reported an increase in sales. Approximately 40 per cent of the dealers who reported a decline in sales volume mentioned the closing of the local bank as a cause, and 9 per cent stated that this factor was the primary cause of the decline.

[5] Kenneth L. Trefftzs, *The Bankless Communities in Illinois*, a thesis for the Ph.D. degree, University of Illinois, 1939.

*Metropolis, ultimate destination of the tendency for consumers to gravitate toward larger and larger trading centers as they seek greater variety and the attendant new experiences.*

LAWRENCE D. THORNTON

### Inefficiency

One of the most important reasons for a gain or loss in the sales of any dealer is his relative efficiency as compared with that of his competitors in the same town or in other towns. The dealer who carries a better assortment of merchandise, who offers better quality or lower price, who employs better salesmanship, and who displays his goods more effectively will win trade from the dealer who is less efficient in each aspect of retail store operation. The inefficient dealer, however, is usually either ignorant of the fact or unwilling to acknowledge it. In spite of this tendency, 6 per cent of the dealers reporting admitted that inefficiency was the primary cause for their decrease in sales.

Efficiency has always been relative. The advent of factors increasing the mobility of trade has not changed this concept. Today competition between retailers in different towns is merely more important than it was when travel was by horse and railroad. The opportunity of the efficient dealer is thus increased and the plight of the inefficient dealer aggravated. Even in the villages which, on the whole, have suffered a great loss in business, one finds successful enterprises that are actually increasing sales.

IC NATIONAL CONVENTION—PHOTO BY ACME

# BUSINESS DIARY

### Event of the Month

*Democratic National Convention nominates F. D. Roosevelt for third term and Henry A. Wallace for Vice-Presidency.*

### During the Month

*British seize French fleet. . . . Nazi-occupied Denmark and Norway pay bond coupons. . . . Stratoliners take wing.*

**1** Roosevelt signs bill reducing rate on Land Bank Commissioner loans from 4 per cent to 3¾ and continuing Federal Land Bank loans at 3½ per cent instead of scheduled increase to 4.

**2** President subjects export sale of materials for national defense to licensing. . . . Nation's fiscal year 1940 ends with public debt at $42,967,000,000; year's receipts, $5,925,000,000; expenditures, $9,537,000,000, net deficit $3,612,000,000.

**5** Nippon bans manufacture and sale of domestic luxuries, including suits and dresses costing more than $0.90, cameras costing more than $120. . . . British Treasury institutes type of compulsory financing, drawing on deposits of the clearing house banks and the Scottish banks. . . . International Rubber Regulation Committee raises U. S. export quota for last half of year.

**8** TWA begins fifteen-hour transcontinental stratoliner service. . . . Memphis, Tenn., opens world's first futures market for soybean meal.

**11** Marshal Petain is dictator of France.

**12** Aetna Life Insurance Company announces increase in rates for life and endowment policies on contracts sold after September 1.

**14** British Government to maintain a fixed rate of $4.02½ to $4.03½ for pound sterling, effective June 18. . . . Col. Batista announces he has been elected President of Cuba.

**16** Department of Agriculture announces expansion of its flour-export program by payment of subsidies on shipments from continental United States throughout Western Hemisphere.

**17** Democratic National Convention renominates Roosevelt.

**18** Democratic Convention nominates Secretary of Agriculture Henry A. Wallace for Vice-Presidency.

**20** President Roosevelt signs $4,000,000,000 bill authorizing construction of two-ocean navy. . . . With largest surplus in history, Southern growers of bright tobacco vote 7 to 1 for three-year production control, 618,000,000 pound quota.

**21** Week-long, nation-wide heat wave continues. . . . Prince Funimaro Konoye completes selection of new Japanese cabinet based on one-party, totalitarian principles.

**23** Wage-Hour ruling brings 70,000 workers "engaged in processing perishable and seasonable fruits and vegetables" under 30-cent minimum, waives hours restriction at peak periods for canning, packing, warehouse employees.

**24** Roumania seizes its biggest oil company, British-Dutch property, charging it failed to furnish information on production. . . . Department of Justice sues eight major tobacco companies and affiliates for violation of Sherman anti-trust act, saying that they built up marketing systems deliberately designed to dominate and dictate terms to growers and dealers; that effect of their advertising and sales promotion is to create a demand which forces dealers to handle products regardless of terms.

**25** Unlicensed export of aviation gasoline, lubricating oil, tetraethyl lead, and Class 1 scrap metal prohibited. . . . Great Britain agrees to supply wheat to Spain. . . . Turkey signs $16,000,000 barter agreement with Germany. . . . Retail price of cream in New York City to rise $0.04 a quart on August 1 when farmers get more for Class 2-A milk. . . . After operating in London for 100 years, Brazilian Treasury Delegation opens offices in New York City.

**26** B. F. Goodrich Company begins construction of $200,000 plant at Niagara Falls for Koroseal, synthetic rubber.

**29** Havana conference of Pan-American Foreign Ministers approves plans and committee-action for defense of Western Hemisphere. . . . Argentina forbids export of wheat and wheat flour.

**30** Britain includes all imports and exports in European blockade; Spain and Portugal to receive only enough food and goods for own needs. . . . B. F. Goodrich and Phillips Petroleum set up company for production of synthetic rubber from oil.

**31** Germany acquires stock control of most of iron and steel industry in Roumania.

THE CUYAHOGA RIVER "INDUSTRIAL FLATS"—PHOTO BY CHARLES PHELPS CUSHING

# THE TREND OF BUSINESS

PRODUCTION . . . . PRICES . . . . TRADE . . . . FINANCE

**The level of business activity holds quite steady at the 1940 peak established early in the Summer. Defense preparations figure more prominently in industrial production and in building. Yet business sentiment still inclines toward cautious conservatism and permits bulletins from abroad to make up its mind about itself.**

THE business curve stopped pointing upward in July and through August it has shown a fairly consistent sidewise tendency. Commodity and stock market activity continues to reveal caution in business sentiment. There is still an unwillingness to make extensive new commitments, either in merchandise inventory or in durable goods investment. Latest available figures on financing operations again show corporate issues for new capital purposes below 1939 totals. Business loans by banks record a smaller seasonal increase than in the corresponding period a year ago.

In contrast to these signs of hesitation, there are numerous evidences of unusual activity in trade and industry. The level of production, except for the last quarter of 1939, is the highest on record. Building permits registered a contra-seasonal increase in July, ranking with the best monthly totals of recent years. Non-agricultural employment has continued to rise and in the latest Government report it was estimated that approximately 1,000,000 more workers were employed than at the same time last year.

Several adjusted indexes of consumer buying showed decreases during July, but reports for August reveal a strong expansion in sales, particularly in the latter part of the month. The brisk buying of higher-priced and durable types of commodities suggests that the mood for spending has kept pace with consumers' increases in purchasing power.

Recent foreign trade figures make a less favorable showing than earlier in the year, but the decrease is not substantial considering the successive elimination of European markets. Despite the virtual closing of French ports to our commerce, total exports in July still showed an increase of 38 per cent over a year ago.

*Industrial activity:* In view of the fact that the newly revised index of the Federal Reserve Board was already at a level close to the all-time peak of the final months of 1939, its failure to record any change between June and July was of considerable statistical interest. In 1937 the index turned downward after reaching 120; in 1939 it stood above 120 for the last three months and then in 1940 gave ground until it had lost 15 points. At 121, the July index was again in the "area of resistance."

Yet there has been no indication so far of a tendency to break through on the downside. It is even possible that a slight gain has been registered in August. Weekly barometers have been rather irregular, partly because of the earlier-than-usual start on new model production, but there was some evidence that an uptrend of slightly more than seasonal proportions was under way during the latter part of the month.

Latest reports showed manufacturers' orders still exceeding shipments. Seasonally adjusted, the index of new orders (NICB) was higher in July than in any month since October, having increased steadily since the low in March. The proportion of new business represented by Government orders is not reported on either in the Conference Board survey or in the monthly analysis by the U. S. Department of Commerce, but some indication of the ramifications of the buying program is furnished by the recent estimate of the woolen textile industry that Government orders represented about 50 per cent of the business on books and by the August figures for heavy engineering construction, which also showed Federal contracts to account for almost half of the total.

Inventories have increased but not to

the extent of the rise in business volume. The Conference Board's index of orders shows a 46 per cent jump over last July, while inventories are 21 per cent ahead. In wholesaling, too, a disparity continues: in July orders were up 11 per cent over last year, stocks 8 per cent. Department stores report a July increase of about 6 per cent in sales, against an expansion of 1 per cent in stocks.

*Consumer income:* The rise in income payments has lagged behind the expansion in industrial activity largely because of a spottiness in farm revenues. In July, however, cash farm income increased by slightly more than the usual seasonal amount, total income of $703,000,000 comparing with $641,000,000 in July 1939 and with $587,000,000 in June 1940. For the same month, payrolls declined by somewhat less than seasonal expectations, carrying the adjusted index from 87.1 in June to 88.1 in July.

The total of all income payments in July was $6,070,000,000, or 6 per cent more than a year ago. While living costs are also higher, the advance is of much less magnitude, indicating that consumer purchasing power has already been substantially enlarged.

*Consumer buying:* Final reports on July retail trade indicate that volume declined by somewhat more than the usual seasonal amount. Adjusted indexes recorded decreases for department stores and for rural retailers. The DUN'S REVIEW barometer of consumer buying was off from 91.1 in June to 89.9 in July.

During August, particularly in the latter part, somewhat freer spending has gradually widened the margin of gain over a year ago. For the last week of the month sales were estimated 7 to 13 per cent over 1939, the broadest increase since last Easter.

*Foreign trade:* Exports are still an exceedingly favorable factor in so far as reports show the highest volume in recent years. Markets have narrowed during the past months, however, and to some extent trade itself has narrowed: armaments or duration-of-the-war type of materials account for most of the increases in volume compared with a year ago. Total exports in July were valued at $317,015,000, under the June level—when trade with France accounted for $47,000,000 worth of goods—but still 38 per cent more than in July a year ago.

## Industrial Production

*Federal Reserve Board Adjusted Index**
1935-1939 = 100

| | 1937 | 1938 | 1939 | 1940 |
|---|---|---|---|---|
| January | 116 | 86 | 102 | 122 |
| February | 117 | 84 | 101 | 116 |
| March | 120 | 84 | 101 | 113 |
| April | 120 | 82 | 97 | 111 |
| May | 121 | 80 | 97 | 114 |
| June | 119 | 81 | 102 | 121 |
| July | 120 | 86 | 103 | 121 |
| August | 120 | 90 | 104 | |
| September | 115 | 92 | 113 | |
| October | 107 | 95 | 121 | |
| November | 95 | 100 | 124 | |
| December | 87 | 101 | 126 | |

* Revised August 1940.

## Factory Payrolls

*U.S.B.L.S. Index*
1923-1925 = 100

| | 1937 | 1938 | 1939 | 1940 |
|---|---|---|---|---|
| January | 94.6 | 75.3 | 83.7 | 98.3 |
| February | 108.1 | 77.5 | 86.0 | 97.8 |
| March | 105.9 | 77.6 | 87.6 | 98.2 |
| April | 109.7 | 74.9 | 85.5 | 96.3 |
| May | 110.1 | 73.2 | 85.0 | 96.3 |
| June | 107.6 | 71.1 | 86.5 | 97.9 |
| July | 105.2 | 71.1 | 84.4 | 96.4 |
| August | 108.7 | 77.3 | 93.7 | |
| September | 104.9 | 81.6 | 93.8 | |
| October | 104.9 | 84.2 | 101.6 | |
| November | 93.3 | 84.4 | 101.6 | |
| December | 84.6 | 87.1 | 103.6 | |

## Department Store Sales

*Federal Reserve Board Adjusted Index*
1923-1925 = 100

| | 1937 | 1938 | 1939 | 1940 |
|---|---|---|---|---|
| January | 93 | 90 | 88 | 92 |
| February | 95 | 88 | 87 | 89 |
| March | 93 | 86 | 88 | 89 |
| April | 93 | 83 | 88 | 89 |
| May | 93 | 78 | 85 | 87 |
| June | 93 | 82 | 86 | 91 |
| July | 92 | 83 | 86 | 89 |
| August | 93 | 83 | 89 | |
| September | 94 | 86 | 91 | |
| October | 93 | 84 | 90 | |
| November | 91 | 89 | 95 | |
| December | 89 | 89 | 96 | |

## Wholesale Commodity Prices

*U.S.B.L.S. Index—1926 = 100*

| Week | May 1940 | June 1940 | July 1940 | Aug. 1940 |
|---|---|---|---|---|
| I | 78.9 | 77.8 | 77.5 | 77.0 |
| II | 78.4 | 77.4 | 77.9 | 76.9 |
| III | 78.5 | 77.4 | 77.6 | 77.2 |
| IV | 77.8 | 77.1 | 77.3 | 77.2 |
| V | | 77.1 | | |

## Industrial Stock Prices

*Dow-Jones Index (Weekly Average)*

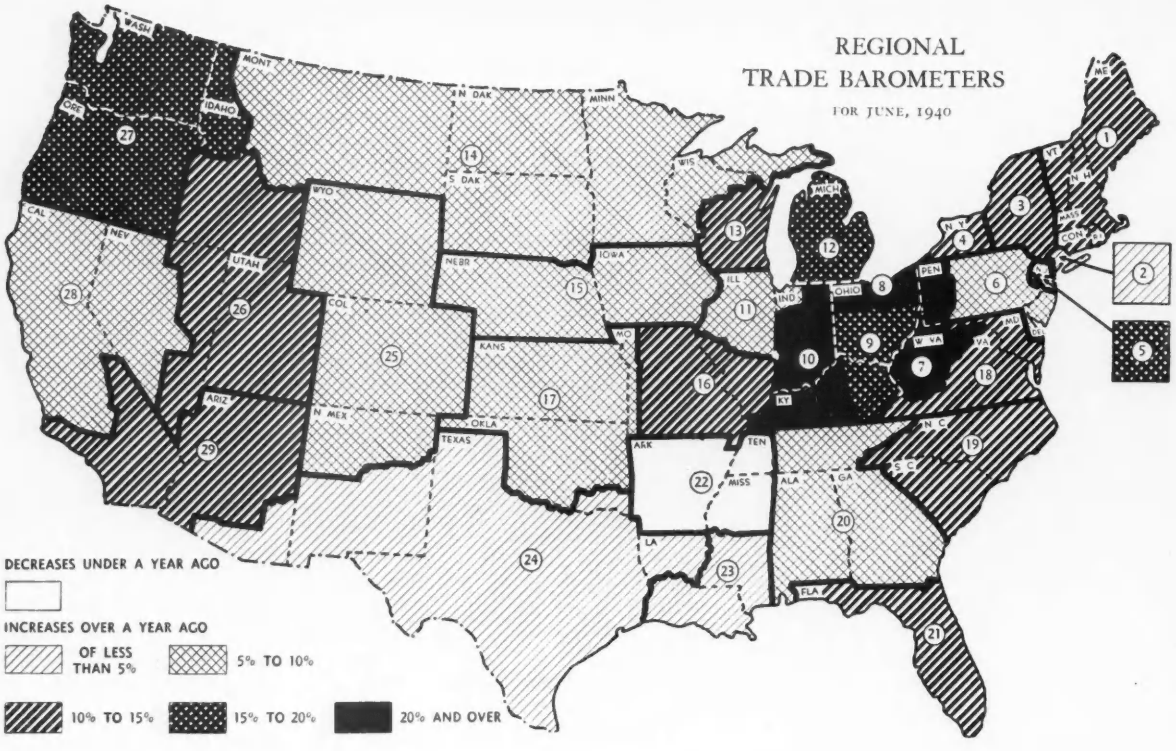
| Week | May 1940 | June 1940 | July 1940 | Aug. 1940 |
|---|---|---|---|---|
| I | 147.82 | 115.55 | 121.22 | 125.69 |
| II | 136.80 | 114.88 | 121.56 | 125.89 |
| III | 128.67 | 119.14 | 122.45 | 123.13 |
| IV | 115.79 | 122.94 | 122.66 | 124.60 |
| V | | 121.52 | | |

Prices: The movement of wholesale price averages is still too narrow to define a change of trend. The USBLS weekly index of commodity prices fluctuated between 77 and 78 during June, July, and August and at the end of August it was registering 77.2.

The industrial stock price average (Dow-Jones) showed an upward trend during the latter part of August, without awakening any very active buying interest. Turnover on the New York Stock Exchange amounted to only 7,614,850 shares during August, the smallest for that month since 1918.

*Money and banking:* New financing efforts continue to be of minor proportions. Issues by corporations for new capital totalled $44,989,450 in July, slightly below last July's volume and equal to the monthly average for the first half of the year (*The Commercial and Financial Chronicle*). Refunding operations raised the corporate total for July to $270,612,400, which was the highest for any month since August 1939. According to preliminary reports, however, there was a decline in refunding during August and consequently a drop in the total value of flotations to approximately $185,000,000.

Commercial, industrial, and agricultural loans by member banks in 101 cities shrank somewhat at the end of July and during August gained only $22,000,000, a smaller increase than in the comparable period of any of the three preceding years. At $4,463,000,000, loans of this type were $467,000,000 larger than at the end of August 1939, a comparatively mild expansion.




# RETAIL TRADE STILL ABOVE LAST YEAR

*The United States Trade Barometer fell to 89.9 (preliminary) in July from 91.1 in June. Barometer figures are compiled by Dr. L. D. H. Weld, Director of Research, McCann-Erickson, Inc.; trade information is reported by the branch offices of* DUN & BRADSTREET, INC.

CONSUMER buying was relatively active during the early part of August, and the margin of gain over last year broadened somewhat as the month advanced. By the end of the third week, stocks of Summer goods were nearly exhausted, and cooler weather was stimulating interest in the Fall promotional merchandise. In the apparel field, especially favorable demand appeared in response to offerings of furs, sportswear, and Fall millinery. Home furnishings and white goods moved in customary good volume for the time of year, and clearances of Summer apparel continued to meet with an active demand beyond the usual seasonal interest in such items.

All parts of the country reported increased trade activity in comparison with last August. In Eastern, Middle Western, Southern, and Southwestern sections gains ranged up to 16 per cent. New England, the Northwest, and the Pacific Coast made increases of 2 to 9 per cent. For the country as a whole the volume of trade averaged 7 to 10 per cent higher than a year ago.

Trade activity in July, according to the preliminary seasonally adjusted United States Barometer, was about 1 per cent below the June level, but continued approximately 10 per cent ahead of the year-ago comparative. In July, as in August, the largest increases were made in industrial districts, with the East and Middle West chalking up gains of 6 to 15 per cent. The Pacific Coast was the only area to show a decrease from the previous year's level at any time during the month.

Although Summer dullness prevailed throughout much of the retail market during July, warm weather and increased payrolls contributed to a relatively strong demand for such items as sporting goods, vacation supplies, and some lines of apparel. Extreme heat toward the end of the month made shoppers rather listless, but early showings

of furniture, coats, and furs attracted none the less a surprisingly favorable amount of interest.

Gains and losses in trade activity were about evenly distributed among the 29 regions of the United States between May and June. The latest Regional Trade Barometers recorded fourteen increases and fifteen decreases. Detroit, with a 6.8 per cent gain, made the best month-to-month showing; other regions where volume increased more than 5 per cent during the month included Cleveland, Milwaukee, and Los Angeles. The only decrease of more than 8 per cent occurred in the St. Louis region, where volume dropped 11.5 per cent in the month. A decrease of 6.2 per cent was registered in Philadelphia, a loss of 7.7 per cent was recorded in Minneapolis and St. Paul; all the other decreases were less than 5 per cent.

Only one region, Memphis, reported trade volume below last June; here the decrease was about 6 per cent. Three regions registered increases of more than 20 per cent—Pittsburgh, Cleveland, Indianapolis, and Louisville. Fourteen other regions recorded gains of more than 10 per cent.

**(Charts and trade reports for each region begin on next page)**

THE MAP AND CHART compare the June, 1940, indexes with those for the same month a year ago. The column at the extreme right of the chart indicates the relative importance of the regions: the figures are percentages of national retail trade from the 1935 Census of Business.

THE INDEXES for the regions are charted, with U. S., from 1938, on pages 28-32. They are composites based on: bank debits (Federal Reserve Board), department store sales (Federal Reserve Board), new car registrations (R. L. Polk & Company), and life insurance sales (Life Insurance Sales Research Bureau). In regions 2, 3, 4, 5, and 14, wholesale sales (Department of Commerce), and in region 2, advertising linage *(Editor and Publisher)*, which were found to make those indexes more accurate, are included. In region 15, department store sales have been omitted. Each index is separately adjusted for seasonal variation and for the number of business days in each month. All are comparable. The monthly average for the five years 1928-1932 equals 100. The preliminary figure for the United States is computed one month before regional figures are available.

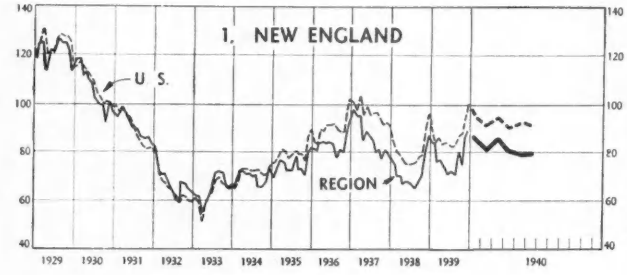
THE PARAGRAPHS printed opposite the 29 regional charts quote figures for June based on samples of department and retail stores reporting to the Federal Reserve banks; for July and for the first half of August based on opinions and comments of business men in various lines of trade, gathered and weighed by the local DUN & BRADSTREET offices.

## REGIONAL TRADE BAROMETERS

| | REGION | June 1940 Regional Index | June 1940 Compared with June 1939 (%) | Retail 1935 Sales % |
|---|---|---|---|---|
| | U. S. | 91.1 | +10.2 | 100.0 |
| 1. | NEW ENGLAND | 79.4 | +11.8 | 7.8 |
| 2. | NEW YORK CITY | 73.7 | + 4.1 | 10.3 |
| 3. | ALBANY AND SYRACUSE | 92.9 | +11.9 | 2.6 |
| 4. | BUFFALO AND ROCHESTER | 80.4 | +11.7 | 1.9 |
| 5. | NORTHERN NEW JERSEY | 79.9 | +15.8 | 2.9 |
| 6. | PHILADELPHIA | 85.0 | + 7.6 | 6.2 |
| 7. | PITTSBURGH | 90.7 | +24.4 | 3.7 |
| 8. | CLEVELAND | 101.0 | +21.1 | 2.9 |
| 9. | CINCINNATI AND COLUMBUS | 104.6 | +18.6 | 3.1 |
| 10. | INDIANAPOLIS AND LOUISVILLE | 109.4 | +21.6 | 2.6 |
| 11. | CHICAGO | 93.1 | + 5.4 | 6.4 |
| 12. | DETROIT | 95.8 | +18.3 | 4.0 |
| 13. | MILWAUKEE | 94.8 | +13.1 | 2.2 |
| 14. | MINNEAPOLIS AND ST. PAUL | 93.9 | + 9.1 | 4.5 |
| 15. | IOWA AND NEBRASKA | 83.9 | + 7.7 | 3.0 |
| 16. | ST. LOUIS | 92.4 | +12.3 | 2.5 |
| 17. | KANSAS CITY | 92.4 | + 5.4 | 3.6 |
| 18. | MARYLAND AND VIRGINIA | 112.8 | +14.1 | 3.8 |
| 19. | NORTH AND SOUTH CAROLINA | 117.3 | +10.5 | 2.1 |
| 20. | ATLANTA AND BIRMINGHAM | 121.2 | + 9.9 | 3.5 |
| 21. | FLORIDA | 133.1 | +13.9 | 1.3 |
| 22. | MEMPHIS | 98.6 | — 6.3 | 1.5 |
| 23. | NEW ORLEANS | 105.2 | + 3.6 | 1.0 |
| 24. | TEXAS | 111.3 | + 3.2 | 4.5 |
| 25. | DENVER | 101.1 | + 7.6 | 1.3 |
| 26. | SALT LAKE CITY | 98.1 | +10.5 | .8 |
| 27. | PORTLAND AND SEATTLE | 98.9 | +16.4 | 2.7 |
| 28. | SAN FRANCISCO | 93.6 | + 8.3 | 3.4 |
| 29. | LOS ANGELES | 95.2 | +10.6 | 3.9 |

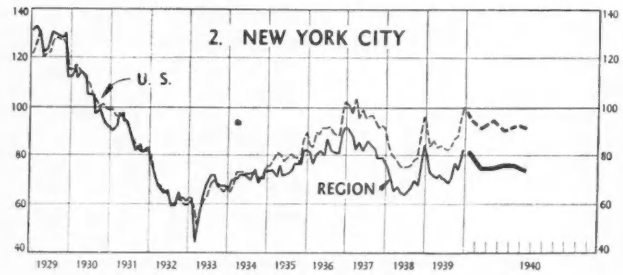
# THE REGIONAL TRADE BAROMETERS

These indexes of consumer buying are corrected for seasonal variation; the monthly average for the five years 1928-1932 equals 100 (see preceding page). Charts comparing the indexes for each region with the index for the United States since January, 1928, appear in this number and were in the September, 1939, and March, 1940, numbers; it is planned that they will be published semi-annually. Additional information about the indexes and about their use in sales quota work, back figures, and data about regional boundaries are available for users of the indexes.



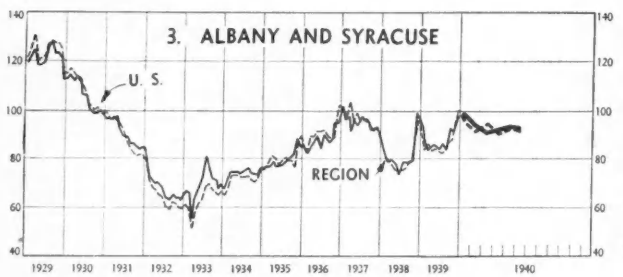

REGION 1: JUNE, 79.4 MAY, 79.1 JUNE 1939, 71.0

JUNE—Percentage department store sales changes from previous June: Boston–Providence —2, New Haven 0. JULY—Percentage retail trade increases over previous July: Bangor–Portland–Manchester 0, Boston 5, New Bedford–New Haven 10, Springfield 8, Worcester 2, Providence 3, Hartford 15. Wholesale trade increases: Portland–Boston 5, Springfield 10. Plenty of rain and high temperatures beneficial to crops. Payrolls and production generally above last year. Machine tool and armament manufacturers operating at capacity; many are adding to plant and equipment. Aircraft and woolen industries very active. Shoe and cotton textile production quiet. AUGUST—Retail sales continue above last year. Industry steady.



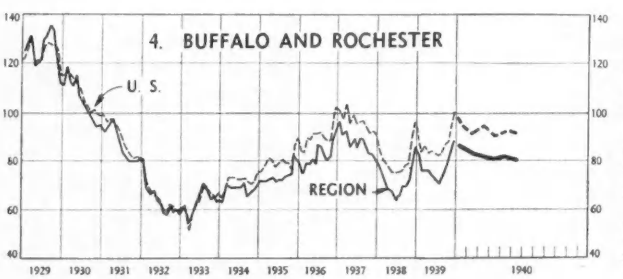

REGION 2: JUNE, 73.7 MAY, 75.7 JUNE 1939, 70.8

JUNE—Percentage department store sales changes from previous June: New York–Brooklyn–Westchester–Stamford —2, Bridgeport +11. JULY—Percentage retail trade changes from previous July: Bridgeport +10, New York City department store sales +4, parcel deliveries +2, hotel sales —7 (transient —11, residential —2). New York City employment and payrolls somewhat below June level, but still 4 to 6% above last year; losses at women's apparel shops and vacation reductions were responsible for the month-to-month declines, as metal, shoe, and men's clothing concerns recorded some gains. AUGUST—Department store sales 2% below a year ago, due to unfavorable weather. Furniture sales spotty. Fur sales above expectations.



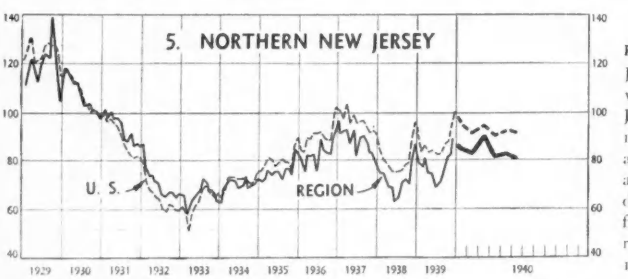

REGION 3: JUNE, 92.9 MAY, 94.1 JUNE 1939, 83.0

JUNE—Percentage department store sales increases over previous June: Syracuse 14, Northern State 6, Central State 9. JULY—Percentage retail trade increases over previous July: Albany 10, Binghamton 2, Utica 6, Syracuse 16. Wholesale trade increases: Albany 10, Syracuse 15. Hay and berry crops very good; prices firm. Corn growing fast, average yield expected. Payrolls and production generally above last year; steady in Binghamton. Tool shops and other metal-working concerns report good volume of orders, some war business. Volume steadily increasing in paper and heavy industries. Binghamton shoe manufacturing steady with June and with 1939. AUGUST—Industry still active. Retail activity even with a year ago.




REGION 4: JUNE, 80.4 MAY, 81.5 JUNE 1939, 72.0

JUNE—Percentage department store sales increases over previous June: Buffalo 3, Rochester 4, Niagara Falls 11. JULY—Percentage retail trade increases over previous July: Buffalo 5, Elmira 8, Rochester 6. Buffalo wholesale trade activity 5% above last year's comparative level. Crop yields normal; prices slightly above a year ago. Payrolls and production generally above last year. Buffalo metal and chemical concerns benefited greatly from orders of military supplies; losses were noted at transportation equipment, wood products, and clothing firms. Employment increased at most Rochester plants, except those producing chemicals and electricity. Collections fair. AUGUST—Retail sales about 6% above last year's level.

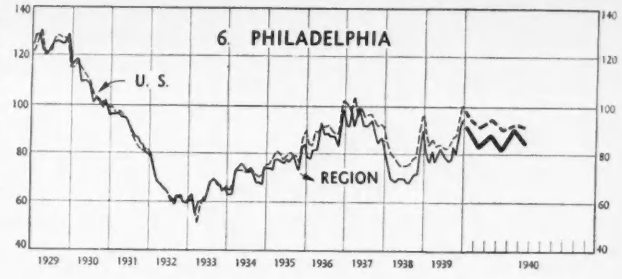



REGION 5: JUNE, 79.9 MAY, 83.1 JUNE 1939, 69.0

JUNE—Northern New Jersey department store sales 6% above level of previous June. JULY—Retail trade in Newark 6% above a year ago, 3% below June level. Wholesale volume up 10% from last July, 4% above previous month. Production, sales, employment, and payrolls in Newark above a year ago, steady with June. Most of increase due to expanding armament and aircraft activities. Paterson silk mill activity rather slow; one mill closed during month. Bank clearings 21% above a year ago in Newark, up 6% for Northern New Jersey as a whole. Collections better than a year ago in retail and manufacturing lines, steady in wholesale. AUGUST—Retail volume 1 to 3% above a year ago. Aeronautical orders increasing steadily.

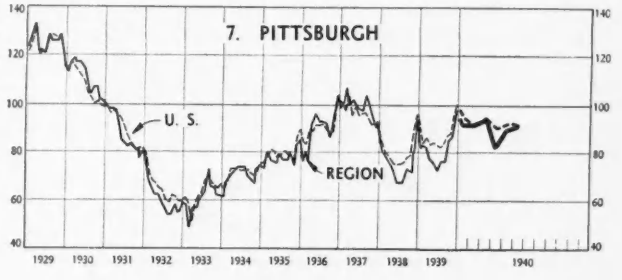
REGION 6: JUNE, 85.0 MAY, 90.6 JUNE 1939, 79.0

JUNE—Percentage department store sales increases over previous June: Trenton 12, Philadelphia 11, Scranton 8, Harrisburg 18, Wilmington 5. JULY—Percentage retail trade changes from previous July: Trenton–Allentown–Williamsport–York +8, Philadelphia +13, Scranton —3, Wilkes-Barre +2, Harrisburg–Wilmington 0, Lancaster —5. Philadelphia wholesale trade 7% above last July. Hot spell in late July offset early cold; crops matured rapidly. Payrolls and production steady to above last year. Chief gains in lines associated with war orders—iron, steel, machinery, shipbuilding, etc. Silk hosiery manufacturers operating at about 40% of capacity. Collections fair to good. AUGUST—Retail sales strong; wholesaling fair.




REGION 7: JUNE, 90.7 MAY, 89.7 JUNE 1939, 72.9

JUNE—Percentage department store sales increases over previous June: Erie 11, Pittsburgh 13, Wheeling 5, West Virginia State 9. JULY—Percentage retail trade increases over previous July: Erie–Huntington 5, Pittsburgh–Youngstown 11, Charleston 15. Wholesale trade increases: Erie 14, Pittsburgh 10, Charleston 12. Payrolls and production steady to above last year, generally steady with June. Youngstown steel mills showing steady gains in production; operations at 86% of capacity compared with 54% in 1939, 34% in 1938, and 77% in 1937. Pittsburgh steel rate averaged 80% for month, against 82% in June; operations at 86% by end of month. Collections fair to good. AUGUST—Retail trade above last year. Industry continues active.




REGION 8: JUNE, 101.0 MAY, 95.0 JUNE 1939, 83.4

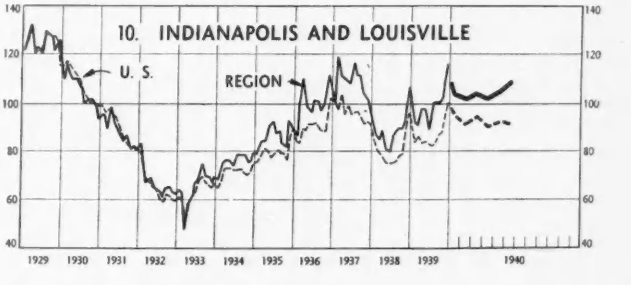
JUNE—Percentage department store sales increases over previous June: Cleveland 9, Akron 11, Toledo 5. JULY—Percentage retail trade increases over previous July: Cleveland–Lima 10, Akron 14, Toledo 4. Wholesale trade increases: Cleveland 10, Akron 6, Toledo 4. Crop prospects poorer than a year ago; farm income higher, but prices lower. Payrolls and production generally above last year. Activity in most lines levelled off somewhat from June, but held at a high level for the season. Backlogs still substantial at steel plants. Toledo glass manufacturing at a satisfactory level; volume larger than in 1939. Akron mechanical goods and sundries lines showing moderate increase. AUGUST—Improvement in most lines from July.

REGION 9: JUNE, 104.6 MAY, 99.8 JUNE 1939, 88.2

JUNE—Cincinnati–Columbus department store sales 11% ahead of corresponding month last year. JULY—Percentage retail trade increases over previous July: Cincinnati 15, Dayton–Columbus–Zanesville 10, Springfield–Lexington 8. Cincinnati–Columbus wholesale trade 5% ahead of last year. Good wheat yield, price slightly above last year. Corn crop responded to hot weather after late start. Truck gardeners report good yields, steady prices. Poultry and dairy products plentiful, prices slightly above June. Payrolls and production above last year. Machine tool manufacturing at capacity level. Building active. Zanesville pottery industry resumed activity. Collections good. AUGUST—Retail sales 8 to 10% above last August. Industry active.

REGION 10: JUNE, 109.4 MAY, 104.8 JUNE 1939, 90.0

JUNE—Percentage department store sales increases over previous June: Louisville 8, Indianapolis 12. JULY—Percentage retail trade changes from previous July: Louisville +3, Evansville +5, Indianapolis +8, Terre Haute —2, Fort Wayne +10. Wholesale trade increases: Louisville 5, Indianapolis 15. Rain during last week of month helped crops, but prices remained lower than at the same time last year. Hay and oats yields good, prospects for corn rather poor. Payrolls and production steady to above last year, steady to up since June. Sales increasing in almost all lines. Collections fair to poor in comparison with last year. AUGUST—Retail sales about 6% ahead of last year. Wholesale volume up 12%. Manufacturing steady.

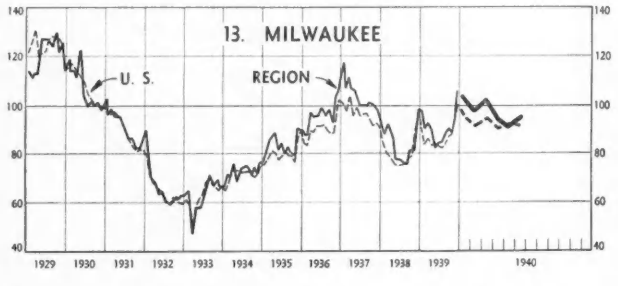



REGION 11: JUNE, 93.1 MAY, 93.6 JUNE 1939, 88.3

JUNE—Chicago department store sales volume 3% above previous June level. JULY—Percentage retail trade increases over previous July: Chicago 7, Rockford 15, Peoria 5, South Bend 20. Chicago wholesale trade 5% above last July. Small grain yield exceptionally good, crops being harvested. Corn yield poor in some sections because of drought, good in other areas where there has been more moisture. Payrolls and production above last year. Manufacturing of large tractors on full-time basis. Machine tools busy; working extra shifts. Aviation plant in South Bend has large backlog of war orders; automobile plant working on 1941 model. Collections fair. AUGUST—Cooler weather stimulated trade in all branches.

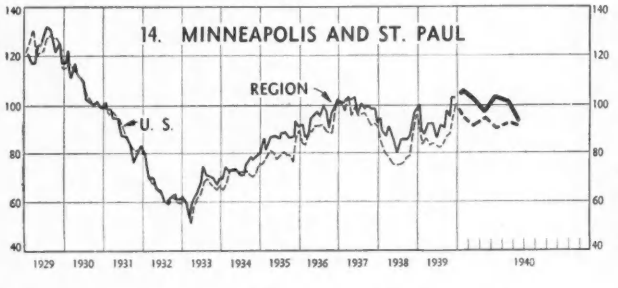
REGION 12: JUNE, 95.8 MAY, 89.7 JUNE 1939, 81.0

JUNE—Detroit department store sales 7% above previous June level. JULY—Percentage retail trade increases over prevoius July: Detroit 3, Grand Rapids 10, Saginaw 6. Wholesale trade changes: Detroit —1, Grand Rapids +8. Early fruit and vegetables finding a ready market; prices satisfactory, close to those of 1939. Payrolls and production above last year, steady to lower than in June. Production of automobiles stopped in third week of month for retooling for the 1941 models. Furniture sales better than a year ago. Collections steady to better than in July 1939. AUGUST—Tool and die shops finding it difficult to keep up with demand in connection with Government purchasing. Retail trade 7 to 10% above last year.



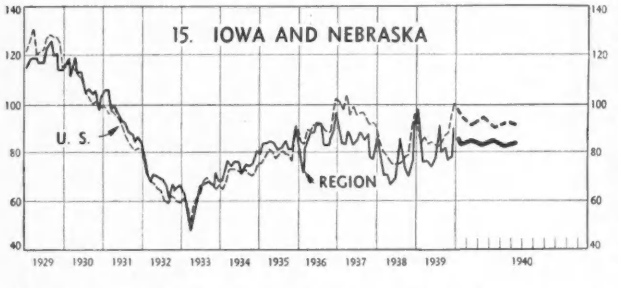

REGION 13: JUNE, 94.8 MAY, 90.2 JUNE 1939, 83.8

JUNE—Milwaukee department store sales 8% above level of corresponding month last year. JULY—Percentage retail trade increases over previous July: Milwaukee 4, Green Bay 9. Milwaukee wholesale trade 5% above last July; Green Bay wholesale trade up 7%, with floor coverings reporting increases up to 38%, and hardware, electrical supplies, etc., 15%. Payrolls and production generally above a year ago, steady to above June. Metal trades leading production in all lines. Paper mills continuing to operate at full capacity, with sales and earnings considerably better than a year ago. Dairy products in good volume; prices equal or better than last year. AUGUST—Milwaukee department store sales about 8% above last year.



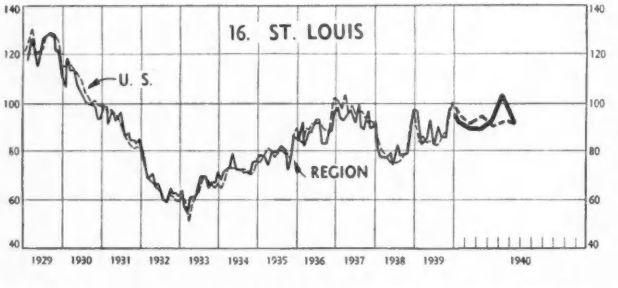

REGION 14: JUNE, 93.9 MAY, 101.7 JUNE 1939, 86.1

JUNE—Minneapolis–St. Paul–Duluth–Superior department store sales 2% above previous June level. JULY—Percentage retail trade changes from previous July: Duluth–La Crosse–Fargo +5, Minneapolis +14, St. Paul +4, Sioux Falls —5, Billings —2, Butte +3, Great Falls —10. Wholesale trade changes: Duluth–Minneapolis +5, Great Falls —5. Crops in some areas affected by drought, but in general yields compare favorably with a year ago. Grasshoppers causing some damage to corn. Threshing of small grains begun in southern part of region. Payrolls and production steady to above last year. Demand for flour and linseed oil products firm. Heavy industry active. AUGUST—Summer dullness in retail trade; volume 4% above last year. Wholesale market activity 7 to 10% above 1939.



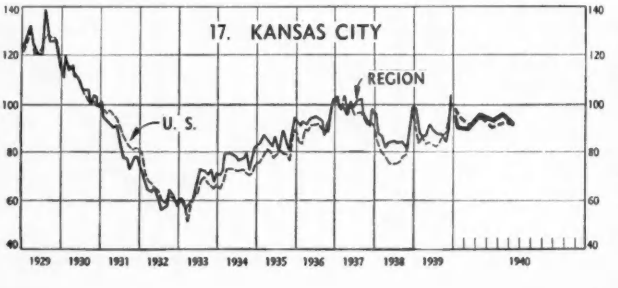

REGION 15: JUNE, 83.9 MAY, 82.6 JUNE 1939, 77.9

JUNE—Retail sales of independent stores in Nebraska 5% above previous June level. JULY—Percentage retail trade changes from previous July: Burlington —3, Cedar Rapids +3, Davenport–Des Moines +5, Dubuque +7, Waterloo +6, Sioux City +8, Lincoln–Omaha 0. Wholesale trade changes: Sioux City +8, Des Moines +5, Omaha 0. Corn crop severely damaged by extreme heat and drought. Heavy rains in some sections of eastern Iowa helped pasture land. Small grain crops good. Payrolls and production steady to above last year. Heavy industry making largest gains, but some lighter lines not showing usual Summer slump. Collections fair to good. AUGUST—Des Moines bank clearings 12% above last year; Omaha clearings up 5%.




REGION 16: JUNE, 92.4 MAY, 101.4 JUNE 1939, 82.3

JUNE—Percentage department store sales increases over previous June: St. Louis 6, Springfield (Mo.) 28, Quincy 1. JULY—Percentage retail trade increases over previous July: St. Louis–Springfield (Mo.) 4, Springfield (Ill.) 0, Quincy 2. St. Louis wholesale trade up 4% from the year ago level. Wheat crop good, but rain needed for corn. Farm prices fair. Payrolls and production, as well as sales and employment, above last year in St. Louis; production of durable goods particularly high during month. Production varied above to below last year's comparative in other cities of the region. Collections fair to poor, even with June. AUGUST—Manufacturing and wholesaling continue at a good level. Retail seasonally slow.



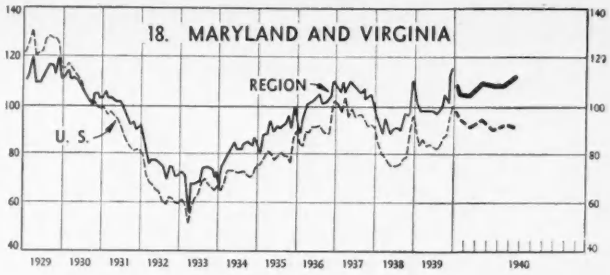

REGION 17: JUNE, 92.4 MAY, 95.6* JUNE 1939, 87.7

JUNE—Percentage department store sales increases over previous June: Kansas City 0, Oklahoma City 4, Tulsa 6. JULY—Percentage retail trade changes from previous July: Kansas City —5, St. Joseph —8, Topeka–Oklahoma City–Tulsa +2, Wichita 0. Wholesale trade changes: Kansas City —8, Oklahoma City +4. Wheat yield and quality better than expected, but prolonged heat wave damaged corn. Prices about same as a month ago. Payrolls and production vary in comparison with a year ago. Wichita aviation plants received contracts in excess of $11,000,000 during month; demand for skilled workmen growing. Packing industry reduced forces 5% in month. Railroad shops on full-time basis. AUGUST—Trade in all branches above last year.

* Revised.

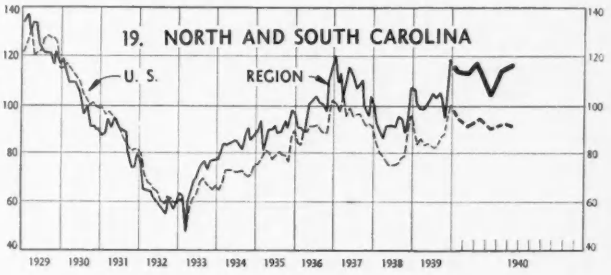
REGION 18: JUNE, 112.8 MAY, 109.3 JUNE 1939, 98.9

JUNE—Percentage department store sales increases over previous June: Baltimore 10, Washington–Richmond 5, Virginia State 4. JULY—Percentage retail trade increases over previous July: Baltimore 7, Washington 11, Norfolk 10, Richmond 4, Lynchburg 15, Roanoke 5, Bristol 0. Wholesale trade increases: Baltimore 5, Norfolk 10, Richmond 6. Weather conditions ideal for corn and wheat: fruit crop looks good. Prices lower due to lack of export. Payrolls and production generally steady to above last year. Steel and durable goods industries making principal gains. Rayon industry close to normal. Textile operations and cigarette production at high levels. AUGUST—Retail trade continues above 1939 level. Shipyards very busy.



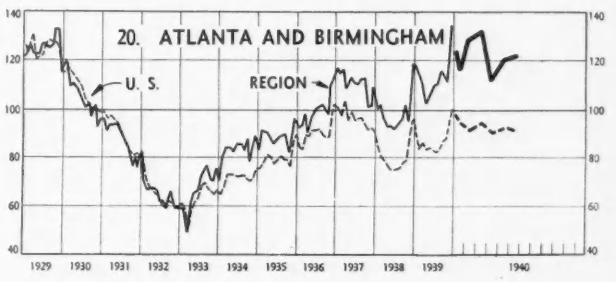

REGION 19: JUNE, 117.3 MAY, 113.7 JUNE 1939, 106.2

JUNE—Percentage department store sales increases over previous June: North Carolina 5, South Carolina 8. JULY—Percentage retail trade increases over previous July: Asheville 2, Winston-Salem–Wilmington–Greenville 0, Raleigh 5, Charleston 10, Columbia 20. Wholesale trade in Wilmington, Charleston, and Winston-Salem on a par with July of last year. Crops in good condition; cotton growing well. Good truck crop prices; tobacco price expected to be low due to withdrawal of foreign buyers. Payrolls and production steady to above last year. Cotton textile orders spotty, but mills operating on full-time basis. Outlook in furniture industry good. Navy yard very busy. AUGUST—Department store sales above last year's comparative.



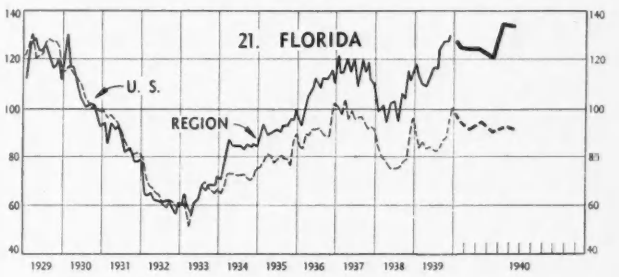

REGION 20: JUNE, 121.2 MAY, 119.7 JUNE 1939, 110.3

JUNE—Percentage department store sales changes from previous June: Atlanta–Birmingham +1, Macon —3, Montgomery —2, Nashville —4. JULY—Percentage retail trade increases over previous July: Atlanta 4, Augusta–Columbus–Knoxville 10, Macon–Mobile–Birmingham 5, Savannah–Chattanooga 2, Montgomery 8, Nashville 3. Wholesale trade changes: Atlanta +4, Birmingham —10, Nashville +2. Cantaloupes, watermelons, and tomatoes now going off market, after high yield and low prices. Outlook for tobacco yield good, but British demand will be lacking. Cotton is progressing nicely. Payrolls and production steady to above last year. Cotton textile activity spotty. AUGUST—Atlanta department store sales about 2% above the same time last year.




REGION 21: JUNE, 133.1 MAY, 135.1 JUNE 1939, 116.9

JUNE—Florida department store sales 9% above previous June level. JULY—Percentage retail trade changes from previous July: Jacksonville +4, Miami +7, Tampa —2. Wholesale trade increases: Jacksonville 2, Tampa 20. Retail sales showed seasonal decline during month, but most stores reported gains over last July. Building materials made the best showing in wholesale markets. Planting started on late Fall vegetables. Citrus crop reported to be in good condition; harvesting will not begin until late September. Payrolls and production below last year in Tampa, above in Jacksonville, and steady in Miami. Jacksonville cigar industry ahead of last July. Lumber demands increased. AUGUST—Little change in trade conditions.

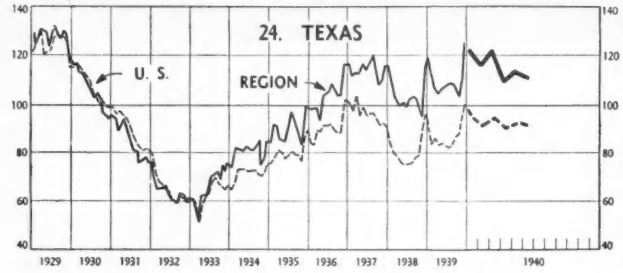



REGION 22: JUNE, 98.6 MAY, 103.3 JUNE 1939, 105.2

JUNE—Percentage department store sales changes from previous June: Memphis —2, Fort Smith +9, Little Rock 0. JULY—Percentage retail trade increases over previous July: Memphis–Little Rock 5, Fort Smith 3. Wholesale trade in Memphis about even with a year ago at the same time. Cotton and corn crops in good condition, covering normal acreage. Payrolls and production steady to above last year, steady with June. Lumber mills and railroad shops operating steadily with normal crews. Manufacturers of furniture report increasing activity. Production expanding at glass manufacturing and steel plants. Collections fair compared with last year and last month. AUGUST—Department store sales 14% above 1939 in Memphis, up 4% in Little Rock.

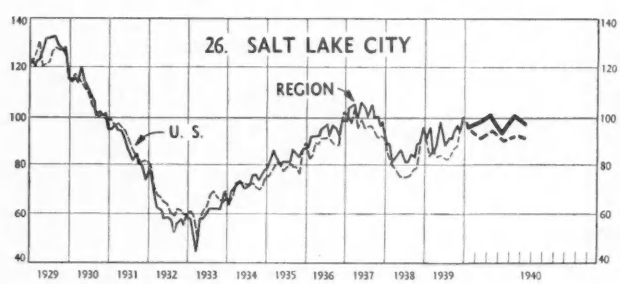
REGION 23: JUNE, 105.2 MAY, 107.9* JUNE 1939, 101.5

JUNE—Department store sales in New Orleans 2% below previous June level. JULY—Percentage retail trade changes from previous July: New Orleans 0, Jackson–Meridian +5. New Orleans wholesale trade up slightly in comparison with a year ago. Crops 15 to 25% below normal due to excessive rains; cotton and sugar cane particularly affected. Payrolls and production steady with a year ago and with June. Oil processing increasing; number of wells rising. Plant expansions under way to take care of national defense production. Shipbuilding becoming active in the coastal section. Collections not wholly satisfactory, as usual prior to major crop harvests. AUGUST—New Orleans bank clearings 9% above level of similar period in 1939. *Revised.

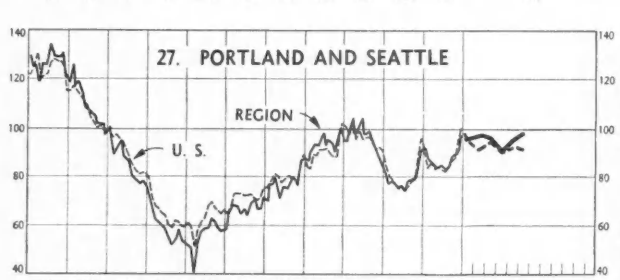



REGION 24: JUNE, 111.3 MAY, 114.2 JUNE 1939, 107.8
JUNE—Percentage department store sales changes from previous June: Dallas —8, Fort Worth —1, Houston —7, San Antonio +10. JULY—Percentage retail trade changes from previous July: Dallas —3, Fort Worth +7, Amarillo–Galveston–San Antonio–Shreveport +5, Lubbock +6, Wichita Falls–Waco —5, El Paso —10, Houston —1, Beaumont +2, Austin —4. Wholesale trade changes: Dallas–Shreveport —5, Houston —2, San Antonio +13, Fort Worth +11. Crop conditions varied throughout the State; too much rain for corn and cotton in some sections, too little in others, and in some areas crops are considered very fine. Payrolls and production steady to above last year. AUGUST—Retail trade 5% above a year ago, stimulated by cooler weather.

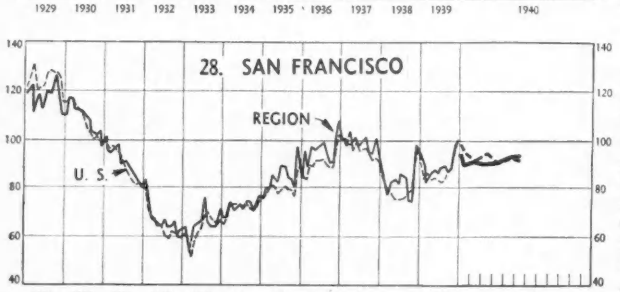
REGION 25: JUNE, 101.1 MAY, 103.6 JUNE 1939, 94.0
JUNE—Department store sales in Denver 3% above previous June level. JULY—Percentage retail trade changes from previous July: Denver 0, Albuquerque —5. Denver wholesale trade 3% above last July; trade in automobile accessories and tires 5 to 7% above last year. Grains in critical stage in dry land areas, due to light rainfall and excessive drying winds, but irrigated sections in somewhat better condition. Fruit crop prospects good; cherry yield good. Payrolls and production steady to above last year. Orders for farm machinery continue heavy. Tourist season not up to expectations so far. Collections fair in Denver, slow in Albuquerque. AUGUST—Truck crops in good condition despite water shortage. Tourist business improved over July.



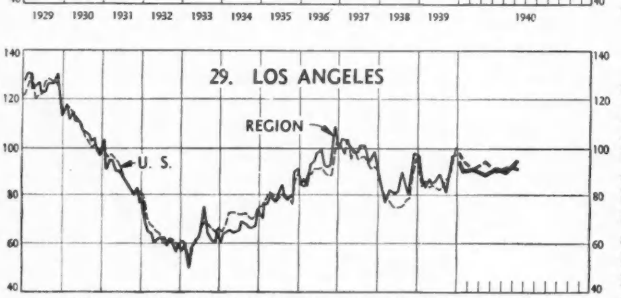

REGION 26: JUNE, 98.1 MAY, 100.8 JUNE 1939, 88.8
JUNE—Department store sales in Salt Lake City 2% above previous June level. JULY—Salt Lake City retail trade 5 to 6% above last July, about even with June. Specialty shops showed little advance over previous year's level, but department store gains ranged up to 10%. Wholesale volume 20% above previous July level, 5% above the previous month. Farm prices a little stronger than last month in some lines. Payrolls and production steady with a year ago and with previous month. Most canneries putting up a pack equal with last year's; prices received somewhat better than a year ago. Collections even with a year ago in manufacturing divisions, better in retail and wholesale channels. AUGUST—Little change in trade conditions noted.




REGION 27: JUNE, 98.9 MAY, 95.1 JUNE 1939, 85.0
JUNE—Percentage department store sales increases over previous June: Seattle 3, Tacoma–Spokane 10, Portland 5. JULY—Percentage retail trade changes from previous July: Seattle–Portland +8, Tacoma —2, Spokane 0. Wholesale trade increases: Seattle 8, Portland 5. Evergreen blackberries now being harvested in Puyallup Valley; good crop and prices. Hay production above normal, and most other crops above last year. Payrolls and production generally above last year. Demand for plywood strong. Large orders being placed with shipyards. Lumber mills continue active; lumber prices improved this month. Airplane plants active. Collections fair to good. AUGUST—Retail sales, though seasonally dull, were higher than a year ago.




REGION 28: JUNE, 93.6 MAY, 92.9 JUNE 1939, 86.4
JUNE—Percentage department store sales decreases from previous June: San Francisco 4, Oakland 8. JULY—Percentage retail trade changes from previous July: San Francisco +3, Oakland–Sacramento 0, Fresno —10. Wholesale trade in San Francisco 7% above a year ago. Crop yields good, but slightly below last season. Farm prices steady. Payrolls and production generally steady to above last year. Shipbuilding and metal lines benefiting from Government orders. Sacramento canneries starting on annual peach pack. Fruit packing generally going forward at a good pace; quality fine. Collections vary, good to poor in comparison with a year ago. AUGUST—Little change in trade picture. More defense orders awarded.




REGION 29: JUNE, 95.2 MAY, 90.1 JUNE 1939, 86.1
JUNE—Percentage department store sales changes from previous June: Los Angeles–Phoenix —8, Arizona State +3. JULY—Percentage retail trade increases over previous July: Los Angeles 8, San Diego 10; Phoenix trade up slightly. Wholesale trade in Los Angeles 10% ahead of last July. Trade in border towns off because of new border restrictions. Livestock ranges in better shape than a year ago. Melon crop good. Citrus prices well above a year ago. Payrolls and production steady to above last year, steady to up in month. Aircraft industry continuing forward strides. Fish packing active. Motion picture output higher than seasonal. AUGUST—Retail volume somewhat lower than in July. Aircraft plant activity expanding.

## INDUSTRIAL AND COMMERCIAL FAILURES

| | Number of Failures | | | | Current Liabilities (Thousands of dollars) | | | | Dun's Insolvency Index† | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Unadjusted | | | | Adjusted‡ | | | |
| | (New Series) | | (Old Series) | | (New Series) | | (Old Series) | | (New Series) | | (Old Series) | | (New Series) | | (Old Series) | |
| | 1940 | 1939 | 1939 | 1938 | 1940 | 1939 | 1939 | 1938 | 1940 | 1939 | 1939 | 1938 | 1940 | 1939 | 1939 | 1938 |
| Jan. | 1,237 | 1,567 | 1,263 | 1,377 | 15,279 | 20,790 | 19,122 | 21,415 | 67.1 | 86.0 | 69.3 | 76.2 | 54.6 | 69.9 | 56.3 | 62.0 |
| Feb. | 1,042 | 1,202 | 963 | 1,149 | 13,472 | 13,582 | 12,788 | 21,028 | 66.7 | 78.0 | 62.5 | 75.2 | 58.0 | 67.8 | 54.3 | 65.4 |
| Mar. | 1,197 | 1,322 | 1,057 | 1,167 | 11,681 | 19,002 | 17,851 | 40,325 | 62.6 | 72.6 | 58.1 | 64.8 | 61.4 | 71.9 | 57.5 | 64.2 |
| Apr. | 1,291 | 1,331 | 1,064 | 1,172 | 16,247 | 18,579 | 17,435 | 21,147 | 70.1 | 73.1 | 58.5 | 65.1 | 67.4 | 71.0 | 56.8 | 63.2 |
| May | 1,238 | 1,334 | 1,028 | 1,123 | 13,068 | 15,897 | 14,664 | 19,139 | 66.9 | 70.5 | 54.3 | 59.8 | 65.6 | 69.8 | 53.8 | 59.2 |
| June | 1,114 | 1,119 | 847 | 1,073 | 13,734 | 12,581 | 11,460 | 15,918 | 62.5 | 66.5 | 50.3 | 64.1 | 64.4 | 69.3 | 52.4 | 67.5 |
| July | 1,175 | 1,153 | 885 | 1,038 | 16,213 | 14,999 | 14,128 | 14,761 | 63.0 | 63.0 | 48.3 | 57.2 | 70.8 | 70.8 | 54.3 | 64.3 |
| Aug. | .... | 1,126 | 859 | 1,015 | .... | 12,637 | 11,259 | 16,382 | ... | 61.4 | 46.8 | 53.8 | ... | 72.2 | 55.1 | 63.3 |
| Sept. | .... | 1,043 | 758 | 866 | .... | 10,545 | 9,402 | 14,341 | ... | 59.0 | 42.9 | 51.6 | ... | 70.2 | 51.1 | 61.4 |
| Oct. | .... | 1,234 | 916 | 997 | .... | 17,464 | 16,140 | 13,219 | ... | 67.0 | 49.7 | 54.7 | ... | 72.8 | 54.0 | 59.4 |
| Nov. | .... | 1,184 | 886 | 984 | .... | 13,201 | 11,877 | 12,302 | ... | 72.6 | 54.3 | 53.9 | ... | 69.8 | 52.2 | 51.8 |
| Dec. | .... | 1,153 | 882 | 875 | .... | 13,243 | 12,078 | 36,528 | ... | 65.0 | 49.7 | 56.7 | ... | 64.3 | 49.2 | 56.1 |
| Total | ... | 14,768 | 11,408 | 12,836 | .... | 182,520 | 168,204 | 246,505 | ... | 69.6 | 53.7 | 61.1 | ... | ... | ... | ... |

† Apparent annual failures per 10,000 enterprises. ‡ For seasonal variation.

# ANALYZING *the* RECORD *of* INDUSTRIAL *and* COMMERCIAL FAILURES

JULY FAILURES REFLECT AN UNSEASONAL RISE

A TOTAL of 1,175 industrial and commercial failures were reported in July, compared with 1,114 in June. The rise in numbers was accompanied by a rise in current liabilities to $16,213,000 from $13,734,000 in June. Total liabilities, however, were less by some seven million dollars, falling to $17,756,000 in July from $25,101,000 in June. A year ago there were 1,153 failures with current liabilities of $14,999,000 and total liabilities of $23,634,000.

A portion of the increase in numbers was due to an additional working day in the July failure month. The insolvency index, which corrects for the varying number of working days and, in addition, relates failures to the number of concerns in business, rose less than 1 point, from 62.5 in June to 63.0 in July.

A rise in the index in the month of July is contrary to the mid-Summer seasonal pattern, which indicates an average drop of about 8 per cent in July. The adjusted index measured the extent of the deviation of current July failures from the normal by rising to 70.8 from 64.4 in June. This 6.4 point rise reversed the downward trend of the adjusted index in May and June, and suggested that the general upward movement of failures in evidence since January of this year was still effective. With the adjusted index at 70.8, failures at the present time are occurring at about the same rate which prevailed during most of 1939, previous to the end-of-the-year-drop, and both the unadjusted and adjusted indexes stood at the identical levels of July 1939.

The unseasonable July increase was apparent in all of the main industry groups except manufacturing. Retail trade failures as a whole rose 9 per cent, wholesale trade failures 3 per cent, construction 7 per cent, and commercial service 4 per cent. Contrariwise, manufacturing failures dropped 4 per cent. Within manufacturing, however, noticeable increases occurred in three of the eleven main lines, chemicals and drugs, iron and steel, and fuels. Failures in paper, printing, and publishing were off to a considerable extent; decreases in other lines were nominal.

Wholesale trade increases were recorded in dry goods and textiles, building materials and hardware, and general supply houses.

Retail trade experienced increased failures in every main line. The increases, however, were not great. Failures in foods were up about 5 per cent, in apparel shops only 6 per cent. Drug stores topped the list with an 11 per cent increase. Failures of country general stores, rose from 9 in June to 19; but a monthly total of 19 was a normal figure following an abnormally small count in June.

The total number of failures in July exceeded the number a year ago by 2 per cent. The greatest relative increases were in commercial service and construction, which were respectively 79 and 63 per cent above the July 1939 level. Retail trade failures were almost

exactly equal to the monthly total a year before and wholesale trade failures were only 2 per cent higher. Manufacturing was again the only group in which failures were fewer in number than last year. This drop amounted to 11 per cent.

NUMBER OF FAILURES

| Industry Group | July 1940 | July 1939 | Per Cent Change |
|---|---|---|---|
| Manufacturing | 216 | 242 | —11 |
| Wholesale Trade | 116 | 114 | + 2 |
| Retail Trade | 728 | 729 | 0 |
| Construction | 65 | 40 | +63 |
| Commercial Service | 50 | 28 | +79 |
| Total | 1,175 | 1,153 | + 2 |

FAILURES BY DIVISIONS OF INDUSTRY—JULY, 1940 AND 1939

*(Current liabilities in thousands of dollars)*

| | Number | | | Liabilities | | |
|---|---|---|---|---|---|---|
| | July 1940 | June 1940 | July 1939 | July 1940 | June 1940 | July 1939 |
| TOTAL UNITED STATES | 1,175 | 1,114 | 1,153 | 16,213 | 13,734 | 14,999 |
| MANUFACTURING (total) | 216 | 226 | 242 | 7,117 | 5,039 | 6,907 |
| Foods | 40 | 48 | 58 | 686 | 1,088 | 2,398 |
| Textiles | 54 | 57 | 57 | 1,455 | 1,018 | 1,196 |
| Forest Products | 25 | 26 | 16 | 287 | 508 | 217 |
| Paper, Printing and Publishing | 12 | 20 | 24 | 272 | 226 | 291 |
| Chemicals and Drugs | 16 | 8 | 3 | 253 | 90 | 32 |
| Fuels | 9 | 6 | 6 | 2,523 | 434 | 1,017 |
| Leather and Leather Products | 4 | 8 | 7 | 64 | 246 | 224 |
| Stone, Clay, Glass and Products | 3 | 4 | 8 | 161 | 93 | 277 |
| Iron and Steel | 15 | 9 | 8 | 266 | 158 | 62 |
| Machinery | 14 | 13 | 16 | 918 | 312 | 787 |
| Transportation Equipment | 5 | 5 | 1 | 72 | 572 | 58 |
| All Other | 19 | 22 | 38 | 160 | 294 | 348 |
| WHOLESALE TRADE (total) | 116 | 113 | 114 | 1,758 | 1,383 | 2,148 |
| Farm Products, Foods, Groceries | 35 | 46 | 42 | 669 | 556 | 822 |
| Clothing and Furnishings | 5 | 6 | 5 | 79 | 241 | 54 |
| Dry Goods and Textiles | 5 | 1 | 4 | 31 | 2 | 42 |
| Lumber, Building Materials, Hardware | 14 | 5 | 10 | 380 | 56 | 59 |
| Chemicals and Drugs | 6 | 7 | 7 | 36 | 48 | 204 |
| Fuels | 4 | 3 | 4 | 35 | 32 | 125 |
| Automotive Products | 3 | 2 | 7 | 29 | 53 | 178 |
| Supply Houses | 12 | 8 | 8 | 90 | 73 | 94 |
| All Other | 32 | 35 | 27 | 409 | 322 | 570 |
| RETAIL TRADE (total) | 728 | 666 | 729 | 5,897 | 5,228 | 5,219 |
| Foods | 208 | 198 | 202 | 1,098 | 899 | 1,090 |
| Farm Supplies, General Stores | 19 | 9 | 21 | 114 | 70 | 281 |
| General Merchandise | 40 | 33 | 30 | 648 | 222 | 193 |
| Apparel | 123 | 116 | 168 | 921 | 1,083 | 1,247 |
| Furniture, Household Furnishings | 50 | 46 | 43 | 534 | 555 | 260 |
| Lumber, Building Materials, Hardware | 33 | 30 | 54 | 383 | 364 | 285 |
| Automotive Products | 58 | 51 | 42 | 362 | 429 | 416 |
| Restaurants | 112 | 102 | 108 | 1,194 | 787 | 800 |
| Drugs | 51 | 46 | 39 | 423 | 394 | 314 |
| All Other | 34 | 35 | 42 | 220 | 425 | 333 |
| CONSTRUCTION (total) | 65 | 61 | 40 | 847 | 984 | 382 |
| General Contractors | 11 | 8 | 4 | 123 | 94 | 24 |
| Carpenters and Builders | 11 | 5 | 11 | 219 | 43 | 148 |
| Building Sub-contractors | 41 | 45 | 25 | 421 | 393 | 210 |
| Other Contractors | 2 | 3 | ... | 84 | 454 | ... |
| COMMERCIAL SERVICE (total) | 50 | 48 | 28 | 594 | 1,100 | 343 |
| Cleaners and Dyers, Tailors | 13 | 8 | 9 | 191 | 84 | 120 |
| Haulage, Buses, Taxis, etc. | 16 | 17 | 6 | 157 | 298 | 48 |
| Hotels | ... | 2 | 4 | ... | 22 | 111 |
| Laundries | 6 | 4 | ... | 90 | 132 | ... |
| Undertakers | 3 | ... | 3 | 90 | ... | 19 |
| All Other | 12 | 17 | 6 | 66 | 564 | 45 |

A breakdown of failures by size, gauged by the amount of liabilities at time of failure, showed that the July increase was principally among small concerns. Failures with liabilities under $5,000 increased 6 per cent, those with debts between $5,000 and $25,000 rose 9 per cent. For the first time since March, over 90 per cent of the entire monthly count was comprised of failures with liabilities under $25,000. Failures among larger concerns, those with liabilities between $25,000 and $100,000, fell from 100 in June to 82 in July. The greater part of this drop was among manufacturers. Very large failures with debts of $100,000 or more rose from 21 to 25. There were, in the hands of the public, only $1,543,000 worth of securities of these 25 large failing concerns, compared with $11,427,000 worth in the 21 large failures which occurred in June.

Current failures exceeded the number in July 1939 only among the very small and the very large concerns. Small failures were 8 per cent higher than a year ago and the very large numbered 25 against last July's 18. Failures in the second size groups, liabilities of $5,000 to $25,000, were little changed in number, while those with debts between $25,000 and $100,000 were off 21 per cent.

NUMBER OF FAILURES

| Size of Liabilities | July 1940 | July 1939 | Per Cent Change |
|---|---|---|---|
| Under $5,000 | 568 | 528 | + 8 |
| $5,000–$25,000 | 500 | 503 | — 1 |
| $25,000–$100,000 | 82 | 104 | —21 |
| $100,000–$1,000,000 | 23 | 15 | +39 |
| $1,000,000 and over | 2 | 3 | |
| Total | 1,175 | 1,153 | + 2 |

Geographically, either sharp increases or sharp decreases characterized the July record in many sections of the country. Only four of the twelve districts reported a decrease. In two of these, Kansas City and Minneapolis, the decreases were severe, leaving only the New York and the St. Louis districts in which there developed a decrease which even closely approximated the normal July downward movement. In the remaining eight districts, which re-

ported increased failures, the rise was considerable in the Cleveland and Dallas districts, little less in the Philadelphia and Atlanta districts, and from 4 to 12 per cent in the remaining scattered districts of San Francisco, Boston, Richmond, and Chicago. Increases in retail trade failures were particularly heavy in the Philadelphia and Cleveland districts. In the New York district retail trade failures were equal in number in June and July.

The balance of the country outside the 25 largest cities failed to a greater degree than the cities to conform to the normal seasonal pattern in July. Failures in the 25 largest cities dropped 1 per cent from June, whereas those in the rest of the country increased 12 per cent. New York City failures dropped about normally, but increases occurred in some of the other large cities, particularly in Chicago, Philadelphia, Cincinnati, and Los Angeles. Compared with a year ago, large-city failures were fewer, while failures in the balance of the country were more frequent.

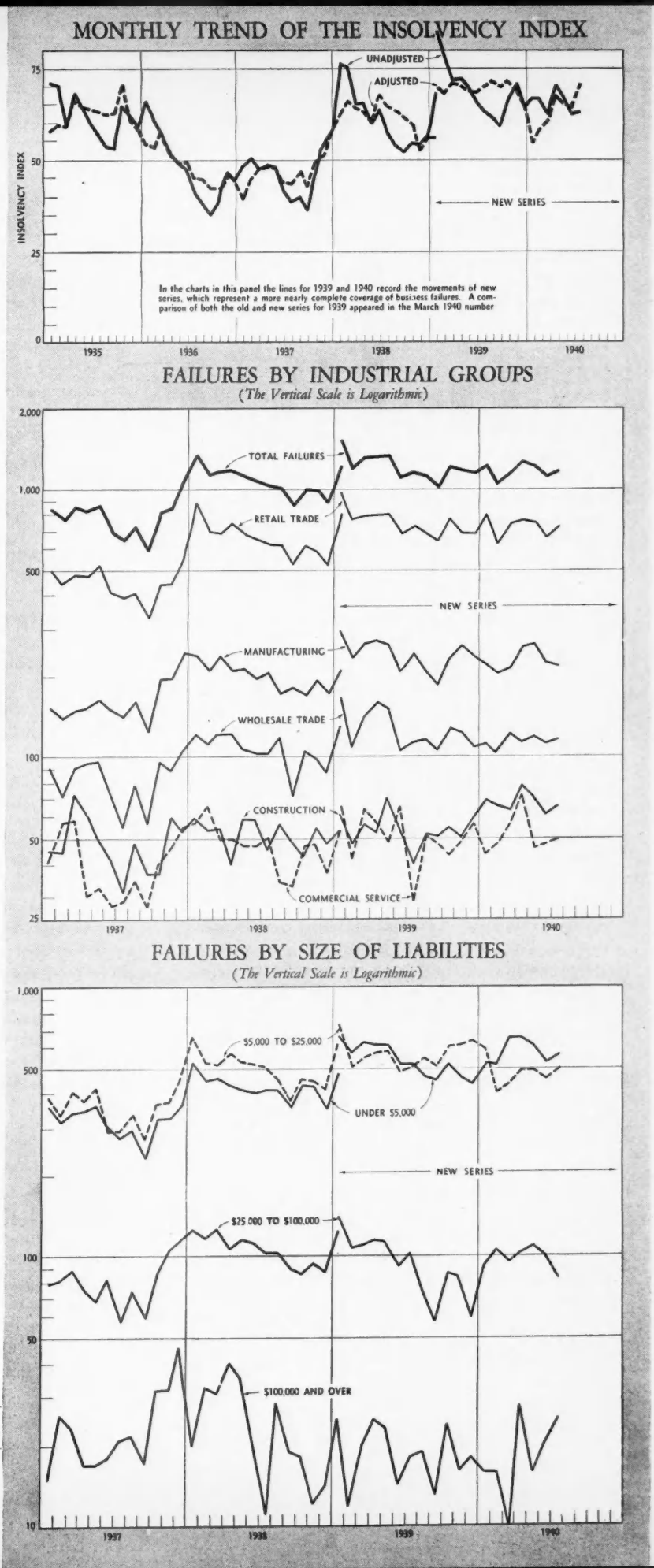
NUMBER OF FAILURES

| Federal Reserve Districts | Jan.-July 1940 | Jan.-July 1939 | Per Cent Change |
|---|---|---|---|
| Dallas | 171 | 215 | —20 |
| Cleveland | 432 | 542 | —20 |
| Kansas City | 316 | 394 | —20 |
| Chicago | 1,174 | 1,333 | —12 |
| Philadelphia | 560 | 619 | —10 |
| New York | 3,053 | 3,389 | —10 |
| Richmond | 345 | 366 | — 6 |
| Minneapolis | 132 | 138 | — 4 |
| Atlanta | 414 | 412 | 0 |
| Boston | 610 | 590 | + 3 |
| St. Louis | 242 | 236 | + 3 |
| San Francisco | 845 | 794 | + 6 |
| Total | 8,294 | 9,028 | — 8 |

## Canadian Failures

Canadian failures numbered 99 in July, compared with 91 in June and 93 a year ago. Liabilities reached $860,000 from $720,000 in June, and $756,000 in July 1939.

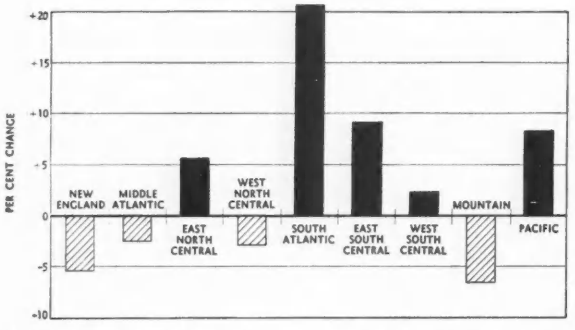
The increase was confined to the Provinces of Ontario, Manitoba, and Alberta. Manufacturing failures rose from 16 in June to 24 in July; wholesale trade failures from 9 to 10; construction from 2 to 6; and commercial service from 2 to 4. Retail trade failures dropped from 62 to 55.



# THROUGH THE STATISTICIAN'S EYES

ODD AND INTERESTING ITEMS FROM THE MONTH'S RECORD

## Employment Trends




NUMBER OF WAGE EARNERS EMPLOYED IN MANUFACTURING INDUSTRIES—*Per Cent Change 1929-1937—U. S. Bureau of Labor Statistics—The entire Southern part of the country and the Pacific Coast had made the most headway in employment since 1929, while the Northeast section and the Mountain States in 1937 lagged somewhat behind the peak.*

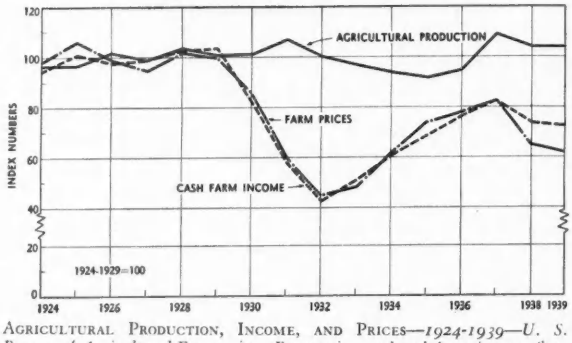
IN THE TWO most recent years of peak business activity, 1929 and 1937, approximately the same number of wage earners were working in the manufacturing establishments of the United States. An average of 8,329,548 wage earners were employed in 1929, against 8,567,738 in 1937, an increase of 2.9 per cent, according to the U. S. Bureau of Labor Statistics. But though the totals were closely comparable, employment in individual industries and in different parts of the country was not so static.

Considering the changes by industries, the outstanding decrease in employment occurred in the building material field—a drop of 22.8 per cent between the two years. Technological unemployment took place mainly in three industries—cigars, tires and tubes, and silk and rayon. Increases in employment in some industries compensated for losses in others; for example, a drop of 13,500 people in the manufactured ice industry was neutralized by a corresponding gain in the electric refrigerator field. In the manufacture of wooden boxes, on the other hand, there were 4,500 fewer employees in 1937 than in 1929, but an additional 10,000 workers had been absorbed in the paperbox industry during the eight-year period. There were about six other industries reporting decreases either because of technological changes or changes in consumer tastes.

Two virtually new industries, alcoholic beverages, and synthetic resins and plastics, contributed approximately 76,000 new jobs to the total in the later year. Five other industries experienced increases in employment of more than 40 per cent between 1929 and 1937—canning factories added 43,000 workers; stamped and pressed metalware, 21,000; rayon production, 16,000; aircraft, 9,000; and asbestos products, 5,000. At least eleven other industries showed a rate of increase in employment substantially greater than the nation's increase in population during the same years. In fact, the Bureau estimated a net increase in all manufacturing industries except the production of building materials of about 62 per cent—just about the proportionate rise in population for the period.

Geographically, it was pointed out, increases in employment were largely concentrated in Michigan, Indiana, Illinois, the South Atlantic, South Central, and Southwestern States, and on the Pacific Coast. The Northeastern territory and other States located on the west side of the Mississippi had not returned, generally speaking, to their former level of employment.

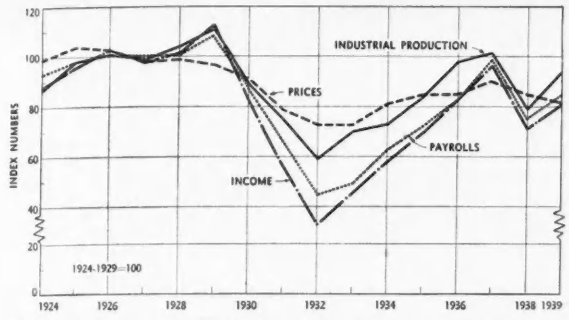
## Agriculture and Industry




AGRICULTURAL PRODUCTION, INCOME, AND PRICES—*1924-1939—U. S. Bureau of Agricultural Economics—Farm prices and cash farm income fluctuated more than did agricultural production during the period; income, including Government payments, held up better than prices in 1938 and 1939.*

FARM PRICES and income seem to follow industrial trends more closely than the trend of agricultural output, according to figures presented by the U. S. Bureau of Agricultural Economics. Farm production has fluctuated rather narrowly in the last sixteen years, the Bureau indicates; indexes based on the years 1924-1929 as 100 moved between a high of 107 in 1931 and a low of 92 in 1935. Cash farm income, on the other hand, swung from a high of 104 in 1929 to a low of 43 in 1932, back to 83 in 1937, and down to 73 again in 1939. Prices followed approximately the same pattern as cash farm income. The Bureau pointed out that farm income in 1938 and 1939, including Government payments, held up better than farm prices, but was materially lower than in 1937 because of reduced industrial activity and export demand.

Swings in industrial production, prices, income, and payrolls were similar in direction to those of farm prices and income, but there was one outstanding difference. These



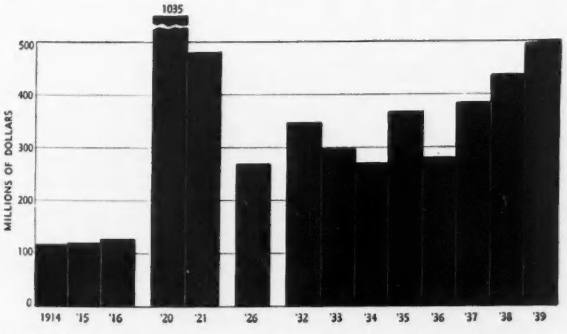

INDUSTRIAL PRODUCTION, WHOLESALE PRICES, INCOME, AND FACTORY PAYROLLS—*1924-1939—U. S. Bureau of Agricultural Economics—Industrial swings were generally wider than agricultural; prices of finished goods remained at a substantially higher level than industrial production, manufacturing income, and factory payrolls during the depression years.*

indexes, converted to the same base as the agricultural ones, were by 1937 back to the 100 mark, or close to it, except for wholesale prices of finished goods at about 90. Prices were less elastic than other industrial factors throughout the period. Income from manufacturing made the widest fluctuations, going from 88 in 1924 to 103 in 1926, to 98 in 1927, thence to 113 in 1929, and down to 33 by 1932; the 1937 peak was 97. The narrower price changes took the index of wholesale prices of finished products from 99.2 in 1924 to 103.7 in 1925, down to 72.5 in 1932, and back to 89.9 in 1937. Production and payrolls declined further relatively than prices during the depression, and reached higher peaks during more prosperous years.

## Defense Expenditures

TOTAL EXPENDITURES of the War Department for defense purposes were the highest last year of any year since 1920, and about four times the amount spent in 1916, according to data gathered from various sources by the National Industrial Conference Board. Outlays for the National Guard, and for the personnel, equipment, etc., of the regular army, amounted to $496,000,000 in 1939; army expenditures accounted for about $490,000,000 of this total.

Defense expenditures per man in the regular army in



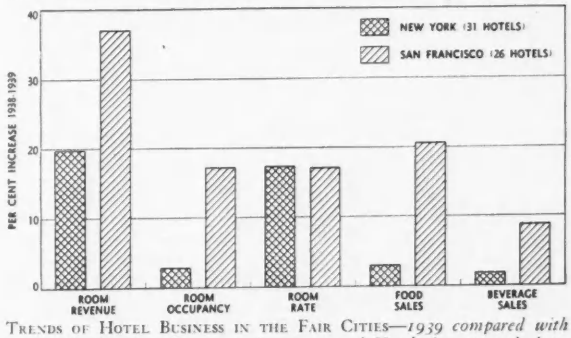

TOTAL U. S. WAR DEPARTMENT EXPENDITURES FOR DEFENSE IN RECENT PEACE TIMES—*1914-1939—National Industrial Conference Board—Defense expenditures in 1939 reached the highest peace-time level since 1920.*

1939 were more than double the 1914 figure, but not much higher than in 1932. The 1939 figures of $2,412 per man (26.3 per cent of this for equipment, 67.6 per cent for personnel, and 6.1 per cent not allocated) compared with $2,329 per man in 1932, $1,786 in 1926, and $1,109 in 1914.

Outlays for defense in 1920 and 1921 were quite high, reflecting the after-effects of the World War. Total defense expenditures declined rapidly in the first three post-war years: from $9,228,000,000 in 1919, to $1,035,000,000 in 1920, to $479,000,000 in 1921. The low point in post-war defense expenditures was reached in 1926, when the total was $267,000,000, and the high point in 1939, at $496,000,000.

## The Fair Cities

THE WORLD'S FAIR in New York and the GOLDEN GATE EXPOSITION in San Francisco drew Americans from all parts of the country last year. Hotel accountants in the two cities (Harris, Kerr, Forster & Company in New York, and the Hotel Accountants' Association of Northern California in San Francisco) made surveys to determine how much the fairs had benefited hotel business in the respective cities.




TRENDS OF HOTEL BUSINESS IN THE FAIR CITIES—*1939 compared with 1938—Harris, Kerr, Forster & Company, and Hotel Accountants' Association of Northern California—San Francisco hotel business showed a more favorable gain than New York in the first year of the Fairs.*

Room revenue in New York City showed a net gain of 19.8 per cent in 1939 over the previous year. For the months when the Fair was open, from April 30 to October 31, increases varied between 31 and 65 per cent, with the 65 per cent peak occurring in August. For the other six months, however, room revenue was below that of the previous year. The San Francisco Golden Gate Exposition was open for a longer period, from February 18 to October 29. Room revenue was lower than in 1938 for only two months of the year in this city, January and December, and in the other ten months the increases varied from less than 1 to more than 99 per cent, with the peak in July. The net gain for the year in San Francisco was 37.0 per cent.

Occupancy for 1939 was 71.3 per cent in San Francisco, against 62.9 per cent in New York. Expenses increased in 1939 over 1938; payrolls were up 8 per cent in New York, 13 per cent in San Francisco; other operating expenses rose 4 per cent in New York, 22 per cent in San Francisco.

# SIGNIFICANT BUSINESS INDICATORS

COMPILED BY THE STATISTICAL STAFF OF "DUN'S REVIEW"

*More detailed figures appear in* "DUN'S STATISTICAL REVIEW"

## Building Permit Values—215 Cities

| GEOGRAPHICAL GROUPS: | July 1940 | July 1939 | Per Cent Change | June 1940 | Per Cent Change |
|---|---|---|---|---|---|
| New England | $8,022,007 | $8,097,402 | — 9.3 | $8,091,210 | — 0.9 |
| Middle Atlantic | 22,047,269 | 26,867,974 | — 17.9 | 28,835,625 | — 23.5 |
| South Atlantic | 18,657,977 | 12,243,156 | + 52.4 | 17,204,301 | + 8.4 |
| East Central | 32,151,175 | 21,315,897 | + 50.8 | 22,241,285 | + 44.6 |
| South Central | 12,098,155 | 11,210,553 | + 7.9 | 11,866,597 | + 2.0 |
| West Central | 7,445,063 | 5,306,726 | + 40.3 | 6,797,311 | + 9.5 |
| Mountain | 2,860,525 | 2,604,066 | + 9.9 | 3,202,983 | — 10.7 |
| Pacific | 21,426,955 | 15,104,671 | + 41.9 | 16,788,779 | + 27.6 |
| Total U. S. | $124,709,126 | $102,750,445 | + 21.4 | $115,028,090 | + 8.4 |
| New York City | $12,555,186 | $16,349,395 | — 23.2 | $18,832,321 | — 33.3 |
| Outside N. Y. C. | $112,153,940 | $86,401,050 | + 29.8 | $96,195,769 | + 16.6 |

## Bank Clearings—23 U. S. Cities

*(Millions of dollars)*

| | Monthly | | | Daily Average | | |
|---|---|---|---|---|---|---|
| | 1940 | 1939 | 1938 | 1940 | 1939 | 1938 |
| January | 24,140 | 23,383 | 21,979 | 928.5 | 935.3 | 879.1 |
| February | 20,641 | 19,885 | 17,735 | 897.4 | 903.8 | 806.2 |
| March | 23,833 | 25,192 | 22,996 | 916.7 | 933.0 | 851.7 |
| April | 23,587 | 21,931 | 21,838 | 907.2 | 879.2 | 839.9 |
| May | 24,361 | 22,374 | 20,324 | 936.9 | 860.5 | 813.0 |
| June | 21,838 | 23,212 | 24,124 | 873.5 | 892.8 | 927.8 |
| July | 22,939 | 21,576 | 21,799 | 882.3 | 863.1 | 872.0 |
| August | .... | 22,782 | 19,890 | .... | 843.8 | 736.7 |
| September | .... | 24,035 | 21,924 | .... | 961.4 | 877.0 |
| October | .... | 22,469 | 24,208 | .... | 898.8 | 968.3 |
| November | .... | 22,807 | 21,819 | .... | 991.6 | 948.6 |
| December | .... | 26,827 | 27,905 | .... | 1,073.1 | 1,073.3 |
| Total | .... | 276,523 | 266,541 | .... | 919.7 | 882.8 |

## Bank Clearings for Individual Cities

*(Thousands of dollars)*

| | July 1940 | July 1939 | Per Cent Change | June 1940 |
|---|---|---|---|---|
| Boston | 976,726 | 921,774 | + 6.0 | 918,736 |
| Philadelphia | 1,771,000 | 1,562,000 | + 13.4 | 1,674,000 |
| Buffalo | 157,581 | 130,465 | + 20.8 | 149,689 |
| Pittsburgh | 587,891 | 491,832 | + 19.5 | 563,441 |
| Cleveland | 487,116 | 409,440 | + 19.0 | 468,132 |
| Cincinnati | 274,261 | 245,298 | + 11.8 | 263,727 |
| Baltimore | 358,453 | 290,237 | + 23.5 | 338,658 |
| Richmond | 177,660 | 167,724 | + 5.9 | 174,613 |
| Atlanta | 269,600 | 238,500 | + 13.0 | 258,000 |
| New Orleans | 166,768 | 163,745 | + 1.8 | 159,509 |
| Chicago | 1,332,508 | 1,230,042 | + 8.3 | 1,366,726 |
| Detroit | 492,302 | 400,879 | + 22.8 | 472,461 |
| St. Louis | 403,096 | 369,581 | + 9.1 | 396,888 |
| Louisville | 154,791 | 144,759 | + 6.9 | 155,538 |
| Minneapolis | 309,034 | 281,076 | + 9.9 | 310,408 |
| Kansas City | 454,795 | 458,083 | — 0.7 | 388,305 |
| Omaha | 134,633 | 128,332 | + 4.9 | 122,984 |
| Dallas | 231,034 | 223,454 | + 3.4 | 226,286 |
| Houston | 204,114 | 190,757 | + 7.0 | 197,714 |
| San Francisco | 667,545 | 593,985 | + 12.4 | 570,388 |
| Portland, Ore. | 167,807 | 129,969 | + 29.1 | 155,078 |
| Seattle | 182,957 | 152,687 | + 19.8 | 172,473 |
| Total 22 Cities | 9,961,672 | 8,924,619 | + 11.6 | 9,503,754 |
| New York | 12,977,160 | 12,651,653 | + 2.6 | 12,334,217 |
| Total 23 Cities | 22,938,832 | 21,576,272 | + 6.3 | 21,837,971 |

## Dun & Bradstreet Wholesale Food Price Index

*The index represents the sum total of the wholesale price per pound of 31 commodities in general use.*

| WEEKS: | 1940 | 1939 | 1938 | 1937 |
|---|---|---|---|---|
| Sept. 3 | $2.32 | $2.32 | $2.42 | $2.86 |
| Aug. 27 | 2.29 | 2.16 | 2.41 | 2.87 |
| Aug. 20 | 2.23 | 2.14 | 2.42 | 2.87 |
| Aug. 13 | 2.24 | 2.13 | 2.41 | 2.90 |
| Aug. 6 | 2.23 | 2.15 | 2.44 | 2.90 |
| July 30 | 2.22 | 2.17 | 2.46 | 2.90 |
| July 23 | 2.23 | 2.14 | 2.47 | 2.88 |
| July 16 | 2.23 | 2.14 | 2.46 | 2.88 |
| July 9 | 2.24 | 2.16 | 2.46 | 2.90 |

| | HIGH | | LOW | |
|---|---|---|---|---|
| 1940 | $2.36 | Jan. 30 | $2.18 | June 18 |
| 1939 | $2.46 | Sept. 19 | $2.13 | Aug. 15 |
| 1938 | $2.53 | Jan. 4 | $2.34 | May 10 |

## Dun & Bradstreet Daily Wholesale Price Index 30 Basic Commodities

*(1930-1932 = 100)*

| | 1940 | | | |
|---|---|---|---|---|
| | Aug. | July | June | May |
| 1 | 113.69 | 114.81 | 115.57 | 120.22 |
| 2 | 113.30 | 114.93 | † | 119.98 |
| 3 | * | 115.38 | 115.11 | 120.27 |
| 4 | † | * | 115.11 | 120.23 |
| 5 | 113.20 | 115.61 | 114.76 | † |
| 6 | 113.17 | * | 114.76 | 119.76 |
| 7 | 113.23 | † | 115.13 | 119.86 |
| 8 | 113.61 | 115.70 | 115.63 | 120.29 |
| 9 | 113.42 | 114.85 | † | 120.27 |
| 10 | * | 114.94 | 115.93 | 121.55 |
| 11 | † | 114.97 | 116.81 | 121.58 |
| 12 | 113.47 | 114.25 | 116.97 | † |
| 13 | 113.09 | * | 116.10 | 121.53 |
| 14 | 113.34 | † | 116.69 | 119.44 |
| 15 | 113.05 | 114.08 | 116.74 | 116.51 |
| 16 | 112.54 | 114.41 | † | 117.50 |
| 17 | * | 114.56 | 115.84 | 117.50 |
| 18 | † | 114.23 | 115.92 | 115.31 |
| 19 | 112.42 | 114.31 | 116.47 | † |
| 20 | 112.88 | * | 116.35 | 116.52 |
| 21 | 112.97 | † | 116.47 | 115.96 |
| 22 | 113.32 | 113.67 | 117.03 | 115.83 |
| 23 | 112.97 | 113.58 | † | 115.40 |
| 24 | * | 113.80 | 116.99 | 115.86 |
| 25 | † | 113.49 | 115.99 | 116.36 |
| 26 | 113.62 | 113.56 | 115.91 | † |
| 27 | 114.11 | * | 115.98 | 116.59 |
| 28 | 113.93 | † | 115.56 | 116.08 |
| 29 | 113.73 | 113.11 | 114.59 | 116.19 |
| 30 | 114.42 | 113.56 | † | * |
| 31 | * | 113.54 | | 115.53 |

† Sunday. * Markets closed.

| | HIGH | | LOW | |
|---|---|---|---|---|
| 1940 | 123.34 | Jan. 2 | 112.42 | Aug. 19 |
| 1939 | 124.19 | Dec. 18 | 101.40 | July 24 |
| 1938 | 117.06 | Jan. 10 | 102.43 | June 2 |

RUST—*Wet steel wire spindles in twin mouths at front of this Rust Cotton Picker roll up the cotton, twisting it from the boll. Then fans blow it into the trailer.*

# HERE *and* THERE *in* BUSINESS

WHAT'S NEW AS OBSERVED BY THE AGENCY'S REPORTERS

***Microfilm***—For the storage of microfilm records, Remington Rand Inc., Buffalo, New York, has devised a controlled humidity filing cabinet. It keeps the films in good condition by maintaining water content of the atmosphere at approximately 50 per cent.

This is done through use of sodium dichromate crystals, placed with some water in six glass trays in a bottom drawer. During periods of high humidity, the crystals absorb excess moisture; at low humidity sufficient water in the trays evaporates to keep the air at 50. Capacity of the storage file's nine drawers is 900 boxes of microfilm.

***Picker***—A standardized model of that Rust Cotton Picker which has been undergoing development since 1927 is expected to begin commercial production in 1941, according to J. D. Rust, inventor and president of the Rust Cotton Picker Company, Memphis, Tennessee. Very scantly stated, the machine pierces cotton with a wet, steel wire spindle and rolls up the fiber.

One model of the cotton picker, for small farm use, is powered by an ordinary row-crop tractor; the other is a self-powered tandem model for heavy yield territory and large plantations. The best prospects seem to be planters who have already tractorized their farms and abandoned the sharecropper system in favor of wages.

So far most cotton picking machines produced have been rented on a custom picking basis. Although the Rust Brothers have set up a foundation to study the effect of their machine on the Southern economy, it seems to them now that introduction of the machines will be too gradual to have drastic consequences on employment.

***Battery***—A rechargeable storage battery for flashlights is being introduced for use by night watchmen, meter readers, and other persons who make extensive use of flashlights. Called the Ideal Quirk Rechargeable Storage Battery, it is manufactured by the Ideal Commutator Dresser Company of Sycamore, Illinois. The container is of Lucite, du Pont's transparent plastic.

A small charger consisting of transformer and rectifier plates is sold for rejuicing. An eye dropper supplies distilled water which, once in, cannot spill or leak. A charge gives the capacity of a pair of the dry cells generally used. To recharge takes twelve hours.

***Tiffany***—To be occupied this Fall, an eight-story building for Tiffany & Company, New York City jewelers, will have an unobstructed showroom floor 85 by 100 feet in size, a ceiling 24 feet high.

According to architects Cross and Cross, Tiffany's large, clear floor space is unusual in that seven floors will be supported over the first one. Three steel trusses, made by Bethlehem Steel Company, Bethlehem, Pennsylvania, carry the weight.

The new Tiffany's will be air conditioned in every part. Six complete and independent systems have been installed for different sections of the building. In Winter a curtain of heated air will protect each entrance and window sill from drafts.

***Tru-Bouquet***—Those gentlemen who constantly cudgel their minds for new ways to say "Happy Birthday" have evolved a novelty which says it with flowers. They call it the Tru-Bouquet greeting card.

The card is a traditional type of greeting folder into the front of which is tucked a little spray of straw flowers and pine. But this is an unusual spray. When you receive it, the flowers are open. Dampen them and they curl up into buds. Then, a little later, they open again. The spray is detachable and may be worn as a decoration, or displayed as a trick novelty.

White & Wyckoff Manufacturing Company, Holyoke, Massachusetts, make the cards. The open-and-close flowers are imported from South

PUTTY—*In the electrolytic tank house of Phelps Dodge Refining Corporation, El Paso, Texas, Goodrich Plasticon Rubber Putty was applied to the steel window sash. It has retained softness and elasticity despite acid-carrying vapor from 1,162 electrolytic tanks.*

America and are said to be a type of straw flower chemically treated for coloring and effect.

***Mirror Machine***—From raw plate glass to finished reflection by continuous mechanical production is the birth story of mirrors made by the Logan Porter Mirror Company, High Point, North Carolina. The company believes its mirror-machine is the first of its kind to be used.

Outside the Logan Porter processing room, glass plates are placed on a conveyor. Inside the machine, they're scrubbed with distilled water. Then, automatically, they are prepared for silvering, silvered, and processed to make the film tough.

***Roll-offs***—For quick, economical transfer of merchandise around the city, R. H. Macy & Co., Inc., New York department store, has been using roll-off truck bodies since 1926. Last year they made them from aluminum. This cut the weight 3,000 pounds, allowed use of a lighter truck chassis, and saved about $125 a truck in tire and license costs, according to Aluminum Company of America figures.

Delivery trucks mount two roll-off bodies eight feet square. In 1926 it was said that two on one truck would weave and batter their facing top edges. But Macy's found this to be a fallacy.

There are three pairs of the eight-foot roll-off bodies to a set. While one pair is being moved, another is loaded at the store and a third emptied at one of the sub stations. Capacity for a pair is 956 cubic feet. Vans previously used had 560 cubic feet.

Besides the advantages of radically increasing production, more efficient handling, and ease of operation, the roll-offs allow greater flexibility in loading and more economical use of rolling stock.

***Advanced***—Des Moines, Iowa, has what architects consider one of the most advanced office buildings ever constructed. It was planned from the inside out, to provide as close to an assembly-line system of production as the character of an insurance business allows.

Bankers Life Company own the six-floor building. Architects were Tinsley, McBroom, and Higgins of Des Moines.

Interesting features include a gymnasium and a clubroom for employees and an auditorium seating 1,100.

Departments with different seasonal peaks are paired on the same floor so that work areas can be expanded and contracted at need. Transportation channels are grouped for a minimum of cross traffic and conflict. Inner walls around large work areas on the lower floors are of panelled steel. Room corners are rounded for ease in cleaning. Two inches of cork insulate the outside walls and roof.

Due to the cork insulation, an unusual wall warming and cooling system is possible. Continuous one-inch copper pipes circulate hot or cold water behind the inner surface of the exterior walls and around windows and doors. The pipes radiate heat or coolness at the sides of the room. The entire building is also air-conditioned.

In major work spaces the acoustics control is integrated with air conditioning and lighting. Recessed lighting coffers are flush with a perforated metal ceiling, which hangs eighteen inches below the structural ceiling. Space between ceilings carries incoming air and admits sound waves to sound insulation pads attached to the structural ceiling. Illumination from the recessed coffers averages 35.9 foot candles at desk height.

PROFILOMETER—*In use at the Studebaker Corporation plant, South Bend, Indiana, this profilometer determines the surface irregularities of mirror finishes to within one-millionth of an inch by drawing a fine radius diamond along the surface. Up and down motion of the jewel creates an electric current, measured on a volt meter. Profilometer is made by Physicists Research Company, Ann Arbor, Michigan.*

TIMER—*For timing long distance telephone calls the firm of Holcomb & Swenarton, New York City, are marketing Tele-trol, a desk device which times a call, rings a gong when three minutes are almost ended, and clocks the amount of overtime used.*

***Washington***—Early this July the State of Washington was rubbing its hands together gleefully over two engineering achievements. Seattle boasts the first—a concrete pontoon bridge; Tacoma the second—a suspension bridge with the third longest center span in the world.

Seattle's bridge crosses Lake Washington. The highway emerges from a tunnel under Mount Baker ridge, crosses the lake shore, and floats for over a mile—6,561 feet—on concrete pontoons. It's the world's longest and largest floating bridge. In the middle it has a section which opens for boats.

The Tacoma Narrows Bridge, also unusual, was completed in eighteen months, half normal time, with only one fatality. At the popularly-accepted ratio of one death for every million dollars spent, six might have been expected. During construction, the "bottom door" caissons had to be held against an 8½-mile tide. For anchors, 56 600-ton concrete blocks were dump-

ed in the water. The caissons went down to 120 feet, twice previous operating depth. They were sunk at the exact spot desired, their position directed by distant engineers with portable radios who "triangulated" them.

Four hydraulic jacks are used to keep the bridge from swinging in a strong wind. For its length of span, it is the narrowest bridge ever constructed. A hundred-mile gale would swing the center section twenty feet sideways if there were nothing to check it.

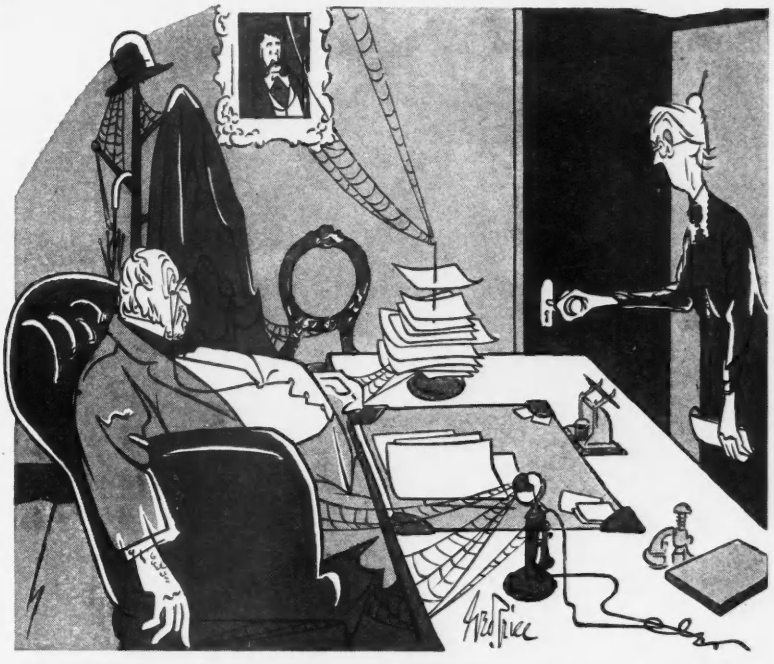
***Study***—Planned especially to meet the need and budgets of students, the first popularly priced Polaroid study lamp has been introduced by Polaroid Corporation. It sells for less than $3.

Style note: The lamp has a walnut finish, Bakelite stem and base. This is trimmed with copper. The shade is eggshell-brown, parchment type. Light from a 100-watt bulb is projected through a sheet of Polaroid anti-glare material by a metal reflector.

LAMP—*Polaroid Corporation, Cambridge, Massachusetts, woos the mass market with a modernistic study lamp for less than $3.*

***Blocks***—In addition to use with cement or plaster, hollow glass blocks for interior partitions may now be set in metal holding frames of aluminum or bronze. If a glass block wall must be moved, the detachable feature of these frames allows the wall to be taken down and put up elsewhere.

Two sizes of the vacuum glass blocks are used in this method of construction. The eight-inch glasses can be mounted in squares of up to eighteen blocks, the twelve-inch in squares of twelve. Revere Copper and Brass, Inc., New York City, and the Aluminum Company of

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# GOOD BUSINESS NEWS

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That's true, too. Our resources of more than $275,000,000 permit us to go the limit in advances to any concern which, in our judgment, has the potentialities of going ahead. We do not have to base our credit limits on physical assets or balance sheets.

In the case of the Blank Co.,* whose letter is quoted in part above, we started our service in 1936. That year, the net worth of the company was $119,477.33, and the books showed $376,568.00 sales volume, resulting in a net loss of $25,292.11.

**"It is no more than fair to say that our very existence today is because of your sympathetic and generous assistance...."**

More, from the same letter. Figures speak even louder than words! At the close of 1939, this company's net worth was well over $350,000. Sales for the year were $731,877.00. Profit, approximately $50,000. And all this was accomplished without a single dollar of additional invested capital.

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Our Open Account Financing Service is a continuing plan, applicable to almost any industrial situation and capable of providing ample funds for operation. It is a simple method of self-liquidating advances against inventories and receivables. For complete details, write for our booklet "Capital at Work" and "Comparative Costs of Financing". No obligation. Address Dept. DR.

**A fictitious name, but the facts and figures, taken from our records, can be certified.*

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America, Pittsburgh, Pennsylvania, make the metal holding frames.

***Occupational***—The United States Bureau of the Budget has asked that everyone classifying workers adopt a common system and uniform terminology.

To establish this uniformity three publications are issued by the Government Printing Office. Skilled interviewers performing job classification and placement work are referred to the Bureau of Employment *Dictionary of Occupational Titles.* For general occupational data where details are lacking the Budget Bureau recommends the *Alphabetical Index of the Census Bureau.*

The *Dictionary of Occupational Titles* describes each occupation in detail and groups related ones. The *Alphabetical Index* omits descriptive details and presents classifications on a broad basis. A bridge between the two systems is provided by a *Convertibility List of Occupations.*

***Read on the Run***—South America's radio stations have an atmospheric advantage in transmission with both Europe and the United States. Recent measurements of radio waves between the two Americas show they average about 25 times the intensity and one-fifteenth the variability of transmission between North America and Europe. Messages for Europe are often routed by way of Buenos Aires. . . . The American Management Association's Eleventh Packaging Exposition and Conference is scheduled for Chicago, April 1 to 4. The annual Irwin D. Wolf Awards, usually announced with it, have been suspended this year pending a study of how the rules should be revised to meet newer phases of packaging developments in the future.

In addition to portable radios which are worn over the shoulder like a candid camera, there's a model out which fits on bicycle handles. It's made by Galvin Manufacturing Corporation, Chicago, Illinois. . . . In Buffalo, New York, the Manufacturers and Traders Trust Company in one month sold over 1,100 companies and individuals on using a special check which has for background a design showing the Peace Bridge, skyline, factories, and other features of Buffalo.

# INVASION *of the* GAMBIAE

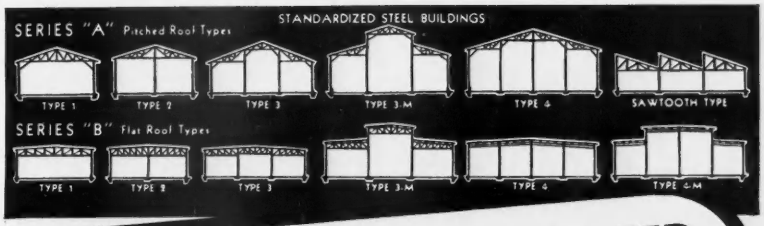
*(Continued from page 15)*

green or other larvicide. The whole region is being mapped from the air so that no pools, ponds, or other collections of water will be overlooked. The adult mosquitoes are being sought and killed in the houses with insecticide sprays to diminish the chances of their laying eggs and thus perpetuating the species in the region. Every automobile and train that leaves the infested area is being stopped, inspected, and fumigated. A maritime service has been organized at points along the coast to disinfect every boat or plane bound for clean ports. It is war in a very real and grim sense, and, unlike other types of war, its purpose is the preservation of human life.

It will be seen from the map on page 14 that by December 1939, gambiae had been pushed back to its central strongholds in the main river valleys and on the narrow coastal shelf. If the mosquito can be held within its present limits during the wet season of 1940, we can begin to think of the possibility of its eventual eradication from the entire region. This, of course, would mean extermination of the last surviving pair.

It must be admitted that eradication is a rash word in terms of prophecy. As in all campaigns, accidents may determine the issue. Thus in one case the gambiae mosquito was transported many miles into previously uninfested territory through the medium of an old automobile which used an improvised wagon road through the jungle and thus avoided the fumigation post on the main thoroughfare. In another case it was a small fishing boat that carried the mosquito up the coast, thus driving a wedge in the defense line against the spread of the disease. If the war is won, victory will come through continued vigilance. The wet season of 1940 will test the efficiency of the present measures and will be critical as far as the gambiae campaign is concerned.

[1] At the end of the 1940 wet season which was unusually rainy, the Rockefeller Foundation reported ". . . much remains to be done. It is still thought that with present measures, adequate funds, and sufficient time the problem of gambiae in Northeast Brazil can be solved."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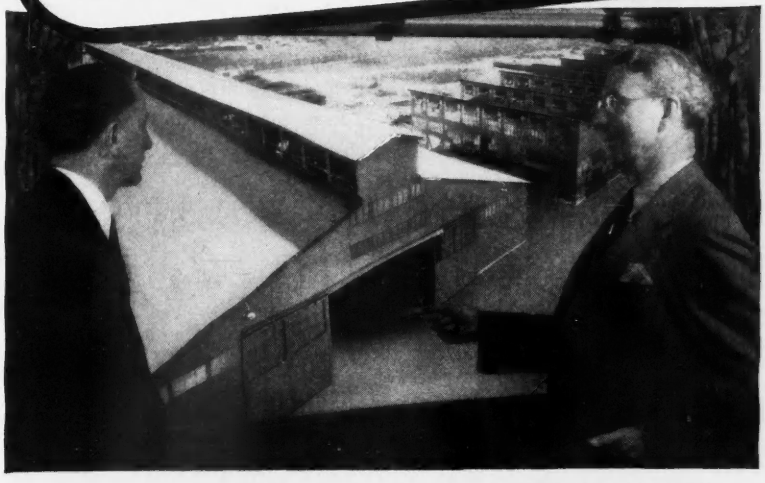

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WHEN you want facts on an unfamiliar line of business, it's always hard to skim from the tidal wave of business books the one or two best. Of service for this purpose is *Selected Books on Business,* published by the University of Nebraska, number 43 of Nebraska Studies in Business. A bibliography compiled by faculty members after study of 1,200 outstanding economic and business publications lists about 350 books deemed the most important. Publication dates range from the 1920's to 1939. Price of the pamphlet is 50 cents.

*Capital Expansion, Employment, and Economic Stability* is a Brookings Institution study of factors responsible for the condition of America's market for capital. It gives particular attention to the influence of government policies. It has 413 pages, costs $3.50. Authors are Harold G. Moulton, George W. Edwards, James D. Magee, and Cleona Lewis. They began the work two years ago.

The study is divided into two major parts: "Investment Trends and Capital Requirements" and "Government Policies and Private Capital Expansion." Agriculture, labor problems, and price and wage policies in relation to economic progress are not covered; nor is the bearing of international influences upon the future of American industry considered. Summary and conclusions of the study appear in a question and answer form.

*Business and the Public Library, Steps in Successful Co-Operation* (edited by Marian C. Manley, Special Libraries Association, 83 pages, $2) indicates how libraries are serving business men. Appendices list libraries which have developed this kind of activity, their special collections, and sources of information about new books and pamphlets on business.

## CURRENT READING

| BOOK | SUMMARY |
|---|---|
| VALUE AND CAPITAL, by J. R. Hicks. Oxford University Press, 331 pages, $4.25. | Amendments and original contributions to advanced economic theory covering subjective value, general equilibrium, dynamic economics, and workings of the dynamic system. |
| MANAGEMENT AND THE WORKER, by J. J. Roethlisberger and W. J. Dickson. Harvard, 615 pages, $4.50. | How to proceed in studying morale improvement and output stimulation; practical findings of a twelve-year scientific study at the Western Electric Company. |
| FEDERAL REGULATORY ACTION AND CONTROL, by Frederick F. Blachly and Miriam E. Oatman. Brookings, 356 pages, $3. | An explanation of the principal features of the Federal administrative system through which the economic policies of Congress are carried out, examining and evaluating various suggestions for improvement. |
| TAX SYSTEMS, eighth edition. Commerce Clearing House, 395 pages, $8.75. | A yearbook of legislative and statistical information about taxes in all States, as well as Canadian and foreign data. |
| ENGINEERING REORGANIZATION, by James J. Gillespie. Isaac Pitman, 268 pages, $4. | Specific problems of purchasing, cost accounting, time study answered from the author's experience in advising medium size engineering companies in Great Britain. |
| WHITHER INTEREST RATES? AN APPRAISAL OF PRESSURE IN AND FROM THE CAPITAL MARKETS, by Harland H. Allen. Harpers, 196 pages, $2. | An investment consultant analyzes supply and demand factors involved in interest rates in the past half century and the effect of the present low interest rates on business. The last chapter poses the problem: Whither Interest Rates? |
| TAX YIELDS: 1939. Tax Policy League, 126 pages, $2.50. | How much does the citizen pay? Statistical data on direct and indirect taxes is used to present a clear picture of the Federal and local tax burden. |
| EXPENSES AND PROFITS OF LIMITED PRICE VARIETY CHAINS IN 1939, by Elizabeth A. Burnham. Harvard, 29 pages, $1. | This is a statistical tabulation of year-to-year trends in sales, stocks, productivity of employees, expenses, profit and loss of selected limited price variety chains, compared according to size. |

# INDUSTRIAL RESEARCH

*(Continued from page 7)*

production routine, spend their days baking cakes and making jellies and jams.

10. Protect your research department against delays and against red tape. If mainly it is to be concerned with raw materials—as often a beginning department or a small department is concerned—see to it that the materials are available for study early enough.

11. Remember that a good scientist seldom is also a good salesman. Be prepared, if necessary, to help your research chief to translate his findings into terms of sales appeal.

12. Scan all findings in the light of all the facets of your business; but bear in mind that successful research results can come only when research work is accepted as receptively as is the work of any other independent department.

13. Whatever the size of your company, equip your research department with facilities adequate to the tasks you assign it.

14. On the score of size—usually, the smaller the business, the more study it needs. And if you fear your business is too small to support research or to house it, consider the cost and the dimensions of a test tube. With little more than a test tube and a bench, a good research worker can find out facts about your business that you never dreamed of.

15. Start modestly with, say, your raw materials and your finished product. Then, as results justify the effort, broaden your research scope.

16. Banish from your mind fear that research may do harm to your business or to society. Your real danger—and industry's real danger—lies in any attempt to limit research's application. Whatever tends to reduce costs and to yield better products always increases demand. Whenever research has lightened the burden upon human labor, soon or late the seeming loss in total employment has been offset by increasing opportunities for employment elsewhere. Besides, most research projects require sufficient time for their own completion to allow for personnel's adjustment.


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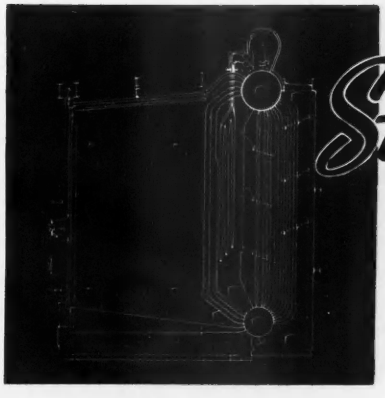

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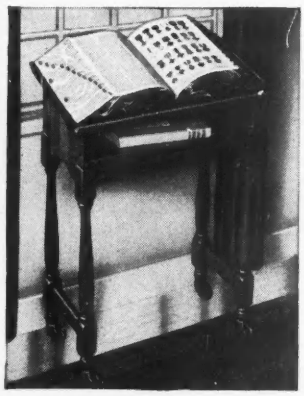

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For defense, for peace, our country will need the best that is in each of us, the best that is in each of our plants. For our industry's good, for our nation's good, for our people's good, let us remember that a business that hides gets nowhere at all. Rather, it is likely to go blind, or die of suffocation.

## RISE *of the* SUPER-MARKET

*(Continued from page 13)*

jobber-retailer system of distribution. They allow at least 10 per cent better mark-ups than the nationally known product, yet can be offered at competitive prices with the latter. Since the Robinson-Patman Act presented a check on preferential discounts to quantity buyers, chains have turned even more to brands of their own not burdened with discount limits.

To the manufacturer of advertised items super-markets were first not unwelcome. The independent markets displayed large quantities of advertised brands. But they also claimed certain buying privileges and tended to alienate the sympathies of wholesalers from national manufacturers. Although the small multiple units of supers and the single super organization buy mostly through jobbers they exert considerable pressure for price reductions. The largest supers feel entitled to cut out jobber distribution entirely.

### Effect on Wholesalers

The shift to the large store has wide repercussions on the structure of wholesale distribution. Where the super's population is most dense, as in California, there has developed a new type of drop-shipment wholesaler who operates at very low margins and does a tremendous volume of business. Again the pressure exerted through extreme price competition makes wholesalers anxious to grasp opportunities for larger margins. This way the private label has lately found much acclaim from jobbers.

All this together has at least partly eliminated the advantages that came to manufacturers of nationally advertised brands from their promotion by supermarkets. While loss-leader selling at first was considered a spur to business in creating larger volume, it is now looked upon as a trojan horse which encroached on the very fundamentals of the national brands' price structure and became instrumental in the intrusion of the private brand. It is alleged that big national chains make it a definite policy to cut prices of nationally known items in order to lure customers into the store and to sell them the private brands displayed in powerful shelf formation.

Small wonder that manufacturers in many instances turned their sympathies towards anti-loss leader laws.

Legal remedies against the loss leader are on the statute books of most States, and both manufacturers and dealers have availed themselves to an increasing extent of fair trade and fair practices acts to control retail food prices. One group of such laws has been passed in 24 States. They establish a price floor which is either cost price or cost invoice price plus a fixed overhead percentage and make it unlawful for any retailer to sell below such a price.[2] In some States machinery has been set up by the grocery trade to enforce the

[2] The laws of Tennessee (1937), Alabama, Idaho, Massachusetts, Rhode Island, Wisconsin (1939), Louisiana, Virginia (1940), carry the designation "Unfair Sales Act." They are patterned after a model act sponsored by a conference of grocery trade associations. Similar laws have been passed under the designation "Unfair Practices Act" in Arkansas, California, Colorado, Montana (1937), Utah, West Virginia (1939), Kentucky (1940); as "Unfair Trade Practices Act" in Connecticut; as an amendment to the "Fair Trade Act" in Maryland; as "Unfair Competition and Discrimination Act" in Oregon (1939); as "Wholesale and Retail Merchandising Act" in South Carolina; as "Fair Sales Act" in Pennsylvania (1937) and in New Jersey (1938).

pricing provisions of the acts, with particular success in Southern California. Where such machinery is lacking the laws have so far been a dead letter.

Another possibility of eliminating loss leaders is offered by the so-called Fair Trade Acts. These laws in 44 States allow manufacturers to establish a fixed retail price below which the advertised item cannot be sold in the retail store. Quite a few manufacturers have availed themselves of this permissive legislation. They have gone on record with fair trade contracts in California, Indiana, Iowa, Kansas, Kentucky, Ohio, Nebraska, and Pennsylvania. Best results have been shown in Ohio, where under the sponsorship of an active grocery retail organization prices of about 50 food manufacturers on national best sellers have been fixed about 6 per cent above retail cost price. It is reported that these minimum prices are well observed by all types of stores. The Ohio fair trade procedure is still in an experimental stage. Should it prove successful, manufacturers may move farther in this direction.

### Price-Fixing Dilemma

Yet there is a great question-mark behind the whole issue of legal minimums. As manufacturers look at it price cutting and promotion of private brands seem to grow hand in hand. From another angle the private brand may appear as the expression of a new form of vertical price competition, namely between manufacturer-sponsored and dealer-sponsored products. Temporary price-war conditions prevailing in the distribution of national brands may stimulate the private label. But there is no evidence that price fixing will reverse the trend. Experience in the drug field points rather to the possibility that freezing of dealer margins on the national item increases the selling appeal of lower priced private brands. The same may happen if grocery items would be placed under fair trade laws.

Most likely legislative price control offers, if anything, only temporary relief from price cutting. Such control may be desirable to eliminate predatory competitive practices. But it will probably fail if it is designed to curb the competition of which the large food store is both a cause and a consequence.


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# OVER THE EDITOR'S DESK

CONTRIBUTORS . . . COMING NEXT MONTH

TO Robert V. Mitchell, (pages 16-22) rural retailing in Illinois is far more than a subject for academic inquiry. He grew up in an Illinois small town, and not a little of his growing up was behind the counter of his father's clothing store.

As an undergraduate Mr. Mitchell studied in the College of Commerce, University of Illinois. His M.B.A. degree in retailing he attained at Northwestern University. For a time he worked for Sears, Roebuck & Company in Chicago, and for the past three years he has been teaching at the University of Illinois.

Mr. Mitchell has based his article on a survey whose findings he first reported for the University of Illinois Bureau of Business Research in its Bulletin No. 59, "Trends in Rural Retailing in Illinois, 1926-1938."

PRESIDENT and trustee of The Rockefeller Foundation and author of its "A Review for 1939," Raymond B. Fosdick (pages 14-15) is a lawyer who has devoted much of his time to civic and other governmental affairs. Before the World War he was for three years Commissioner of Accounts in New York, in charge of investigations of city departments. The year 1913 he spent in Europe studying police organization.

During the war Mr. Fosdick served the Army in several special capacities, ultimately as Civilian Aide to General Pershing. Afterward, in the League of Nation's first year, he was its Under Secretary-General. His brother is the Rev. Harry Emerson Fosdick.

UNTIL five years ago Reinhold P. Wolff was practising law in Germany and following there the development of cartels. In this country he has made fair trade legislation and its causes and consequences his major interest. In New York City until a year ago, he taught marketing classes at New York University and edited *Trade Regulation Review*.

This past year Dr. Wolff has been teaching at a university in the "large southern city" where he conducted the price survey reported in this article (pages 8-13). The city remains anonymous for part of the data was given Dr. Wolff on condition that identification be withheld.

Dr. Wolff has been an active advisor to the National Bureau of Economic Research and the National Industrial Conference Board. Much of his current research has been made possible by a grant-in-aid made by the Social Science Research Council. He is a contributor to DUN'S REVIEW many times over.

ECONOMIC considerations and possible consequences of the national defense program are the subject of next month's article by Edwin B. George. It continues his August report—"Some Economic Aspects of the Defense Program."

In that he dealt with the fountain springs of Government business. For October, Mr. George investigates what may happen to the channels of our industrial and social system when a flood of defense expenditures rolls through them.


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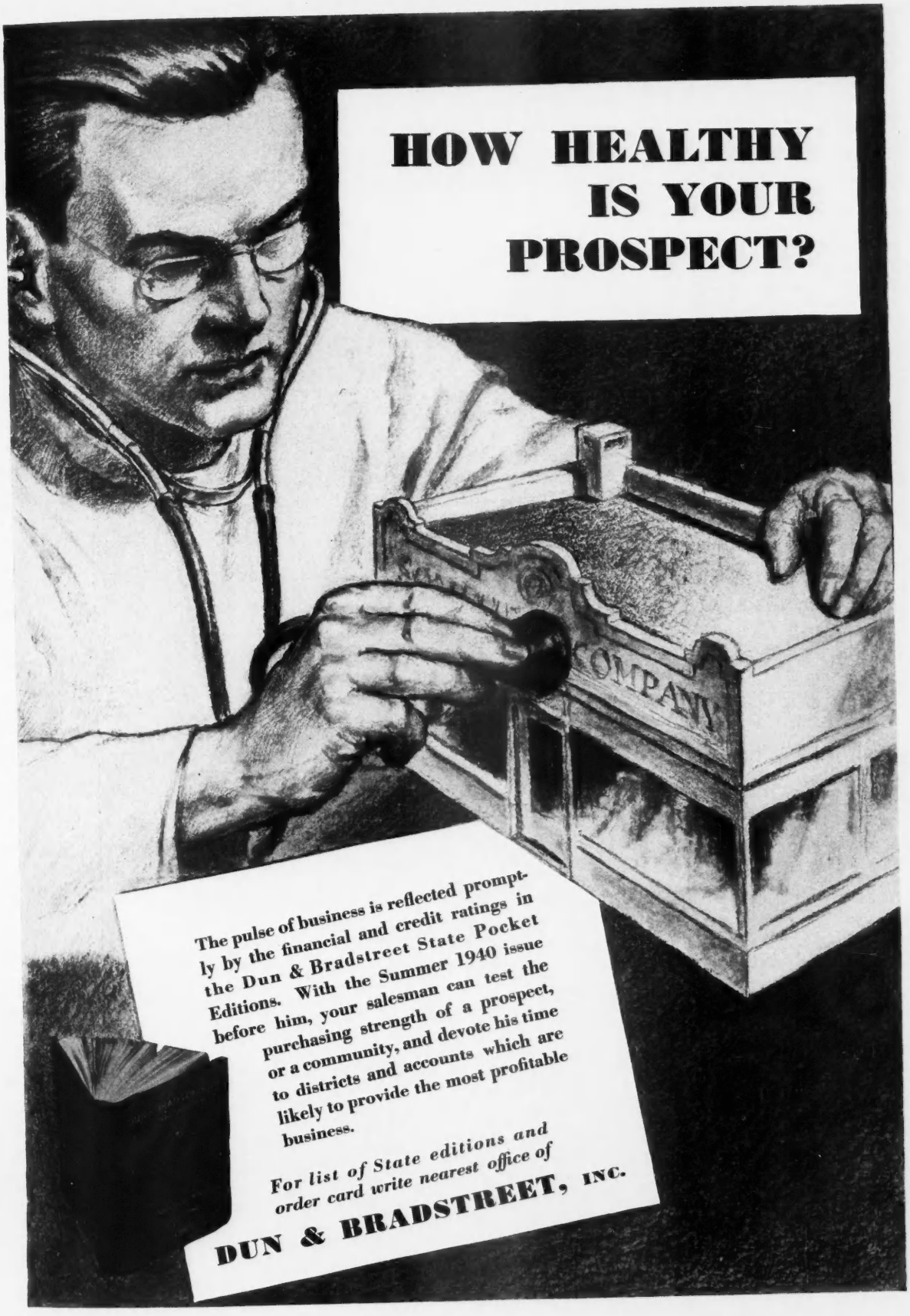
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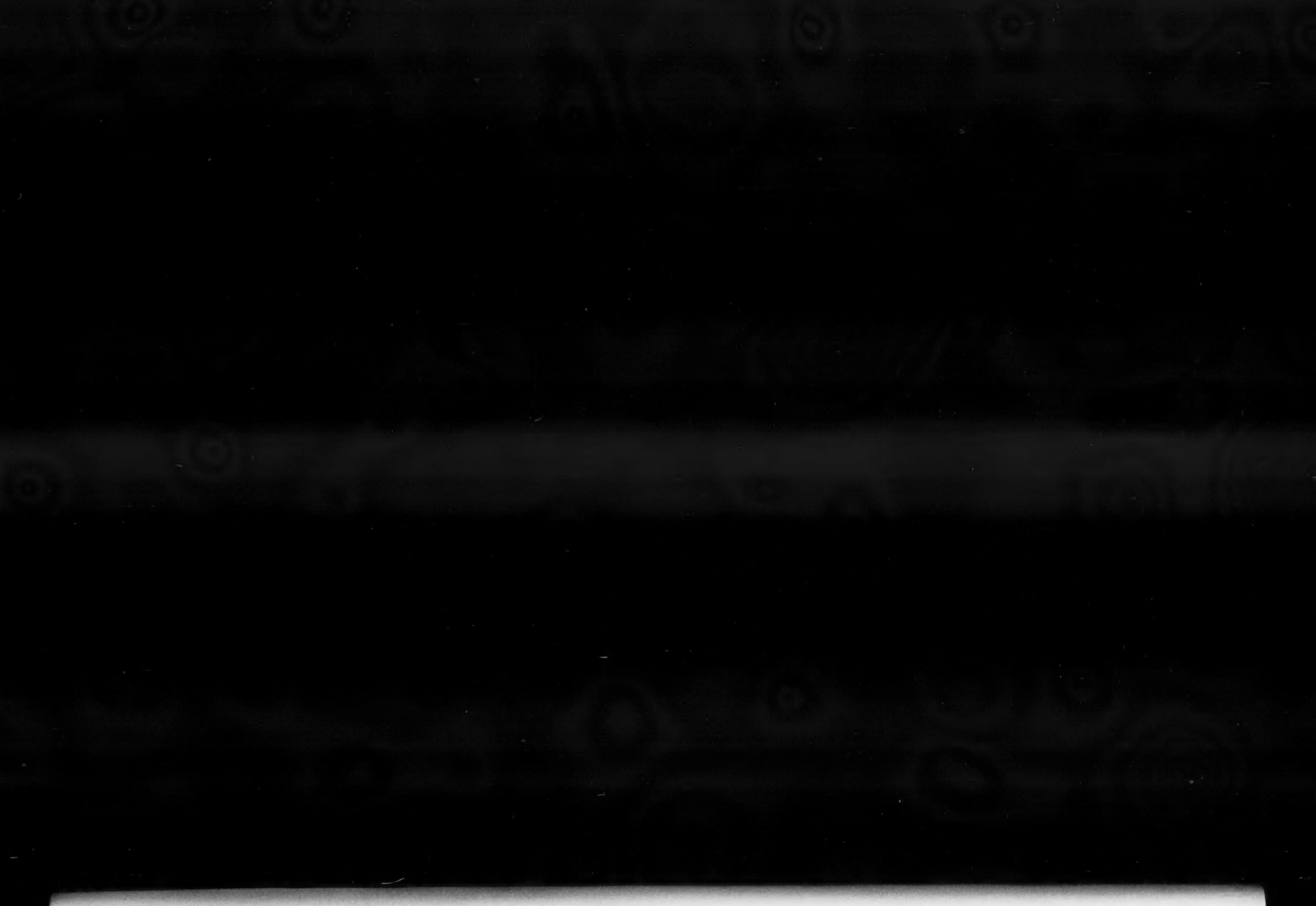
CULVER

# CAUTION

A BUSINESS man in New York was trying to judge the future of a small city in the Midwest. He was decidedly pessimistic, basing his opinion chiefly on the fact that the new Census of 1940 shows no gain in population over 1930. Luckily, he talked with a man who knew the city well, who said: "Bill, you've got to take into account the fact that the State Penitentiary was moved away. That took 3,000 off the Census population, although it didn't lose you a single possible customer.

"Besides, those two new sections just over the city line added 5,000. Why, the city really is growing fast."

A little knowledge is a dangerous thing,—and that goes double for statistics.

Willard L. Thorp.

EDITOR